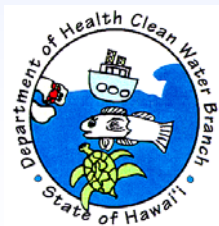


National Pollutant Discharge Elimination System (NPDES) Permit Program



National Pollutant Discharge Elimination System (NPDES)

- Hawaii is one of the EPA delegated States to administer NPDES permit program
- Clean Water Branch is responsible to implement the program



NPDES

Federal Law and Regulation

- Section 402 of Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (Commonly referred to as Clean Water Act)
- 40 Code of Federal Regulations (CFR)



NPDES

State Law and Regulation

- Hawaii Revised Statutes, Chapter 342D, Water Pollution
- Hawaii Administrative Rules, Title 11, Chapter 54, Water Quality Standards
- Hawaii Administrative Rules, Title 11, Chapter 55, Water Pollution Control
- <http://www.hawaii.gov/health/about/rules/admrules.html>



Summary of November 2002 Amendments to HAR, Chapter 11-55

- Adopted Phase II of the Storm Water Regulations
- Re-adopted eight (8) general permits
- Adopted three (3) new general permits
- Modified Appendix C to include Discharges of Storm Water from Small Construction Activities (1 to 5 Acres)
- Added HAR, Section §11-55-38
- Added HAR, Section §11-55-39



HAR, Section 11-55-38 (Effective November 7, 2002)

- Clarify procedures per HRS, Section 6E-42(a) requirements under the State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources (DLNR)



HRS, Section 6E-42(a) “before any agency or officer of the State or its political subdivisions approves any project involving a permit, license, certificates, land use change, subdivision, or other entitlement for use, which may affect historic property, aviation artifacts, or a burial site, the agency or office shall advise the department and prior to any approval allow the department an opportunity for review and comment on the effect of the proposed project on historic properties, aviation artifacts, or burial sites, consistent with section 6E-43, including those listed in the Hawaii register of historic places.”

HAR, Section 11-55-39 (Effective November 7, 2002)

- Clarify public interest procedures per HRS, Section 342D-6(g)



NPDES Permit

Goals and Missions

- To ensure that Hawaii's coastal waters are safe and healthy for people, plants and animals
- To protect and restore the quality of Hawaii's streams, wetlands, estuaries and other inland waters for fish and wildlife, recreation, aesthetic enjoyment and other beneficial uses



When an NPDES permit is required?

- An NPDES permit is required when:
 - a discharge of pollutant;
 - from a point source;
 - into State Waters.



Beginning of the NPDES Permit Program

- Regulates the discharges of wastewaters from municipal, industrial and federal facilities, such as:
 - > Wastewater treatment plant effluent
 - > Power plant process wastewater
 - > Concentrated animal feeding operation
 - > Sugar mill operation
 - > Mineral mining



Storm Water Regulations

- In 1987, Congress added 402(p) of the CWA which requires EPA to develop storm water regulations in phases
- To regulate storm water discharges from industrial activities
- On November 16, 1990, EPA adopted Phase I rules to regulate storm water discharges
- On December 8, 1999 EPA adopted Phase II storm water rules



December 8, 1999 EPA Adopted Phase II Storm Water Rules

February 7, 2000

- Conditional “No Exposure” exclusion

March 10, 2003

- Small Municipal Separate Storm Sewer Systems (Small MS4)
- Construction activities 1 to 5 acres
- Municipally-Operated industrial activities



Conditional “No Exposure” Exclusion

- Effective January 6, 2001.
- “No exposure” means that all industrial materials and activities are protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff.
- Submit certification to DOH.
- NO filing fee.



What is a Municipal Separate Storm Sewer System (MS4)?

- An MS4 is a conveyance or system of conveyances....owned by a state, city, town or other public entity that discharges to waters of the U.S. and is:
 - designed or used for collecting or conveying storm water
 - not a combined sewer
 - not part of a Publicly Owned Treatment Works (POTW)

Small Municipal Separate Storm Sewer System (Small MS4)

- A small MS4 is any MS4 that is not already designated and regulated as a medium or large MS\$, and includes Federally-operated systems.

Regulated Small MS4

- A regulated small MS4 is any small MS4:
 - Located in an “urbanized area” (automatic” nationwide designation) and not waived by the permitting agency; or
 - Designated by the permitting agency

Urbanized Area

- A central place (or places) and the adjacent densely settled surrounding territory that together have a minimum residential population of 50,000 people and a minimum average density of 1,000 people per square mile.
- A compilation of the population densities for the latest Decennial Census in Hawaii, Maui, and Kauai Counties is located in the “Resident Population, Land Area and Density for Islands and Census Tracts in the State of Hawaii: 2000 (Revised 2/22/02)” at <http://www.hawaii.gov/dbedt/census2k/ctd-00r.pdf>

County of Maui

Areas Over 1,000 People Per Square Mile

- South Wailuku
- West Kahului
- Northeast Kahului
- South Kihei
- North Kihei
- Lahaina Town
- Southeast Kahului
- East Central Wailuku
- North Wailuku
- West Central Wailuku
- Central Kahului

Intermodal Surface Transportation Efficiency Act (ISTEA)

- **March 10, 2003 is the deadline for municipally operated-industrial activities which were temporarily exempted under Phase I rule (with populations less than 100,000 people) to obtain a storm water discharge permit.**

Industrial Activities Require Storm Water Permits

1. Facilities subject to EPA's National Effluent Guidelines
2. Manufacturing facilities
3. Mining and oil and gas operations
4. Hazardous waste treatment, storage, or disposal facilities
5. Landfills that receive industrial wastes



Industrial Activities Require Storm Water Permits (Continued)

6. Steam electric power generating facilities
7. Transportation facilities
8. Sewage treatment plant
9. Construction activities 1 acres or more
10. Facilities where materials are exposed to storm water
11. Recycling facilities



Business Classification Codes

- Standard Industrial Classification Codes (SIC)
- North American Industry Classification System (NAICS) by the end of September 2002
- <http://www.census.gov/epcd/www/naics.html>



Types of NPDES Permit

- General permit
- Individual permit

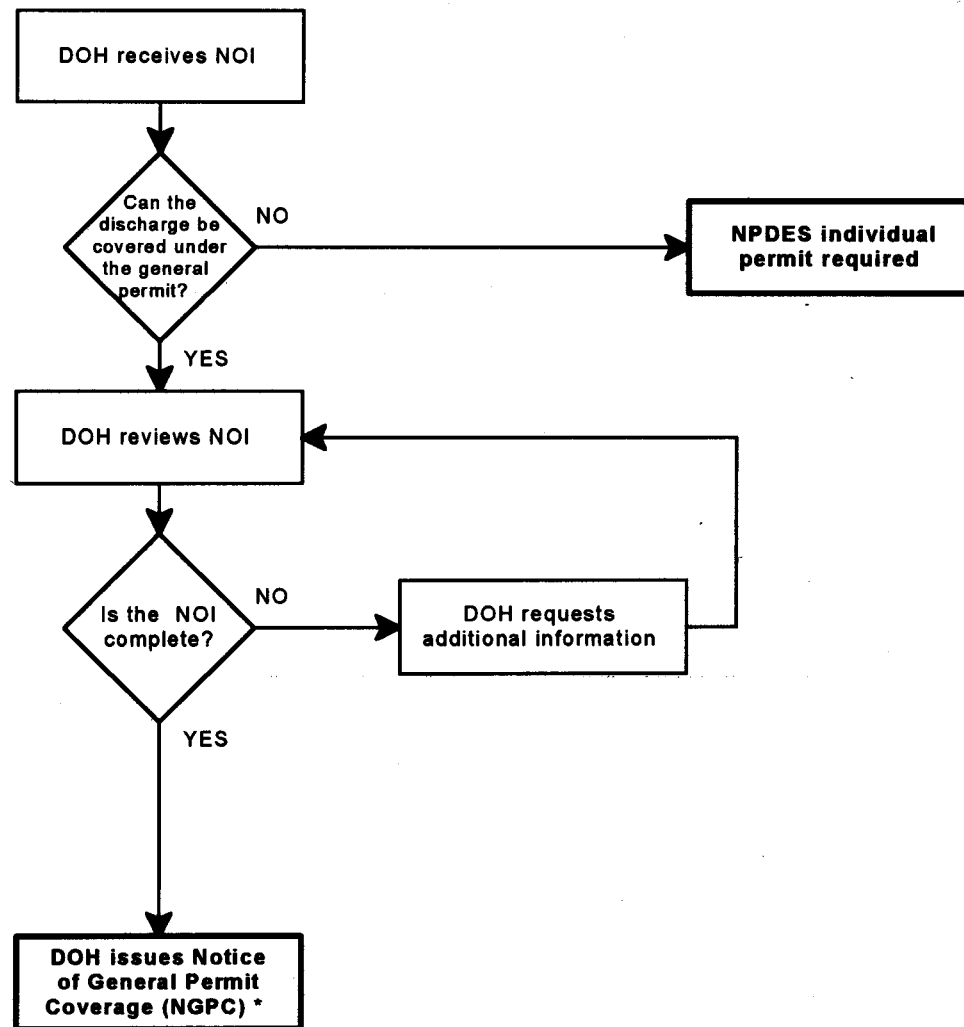


General Permit

- Adopted as rules (Chapter 11-55)
- Similar nature of discharge
- Minor and Non-controversial
- 30 days to process (with complete Notice of Intent)
- \$500 filing fee
- Good up to five (5) years



NPDES General Permit Processing Flowchart



* Coverage may be issued within 30 days of receipt of complete NOI or automatic coverage may be assumed as specified in Hawaii Administrative Rules (HAR) Section 11-55-34.09.

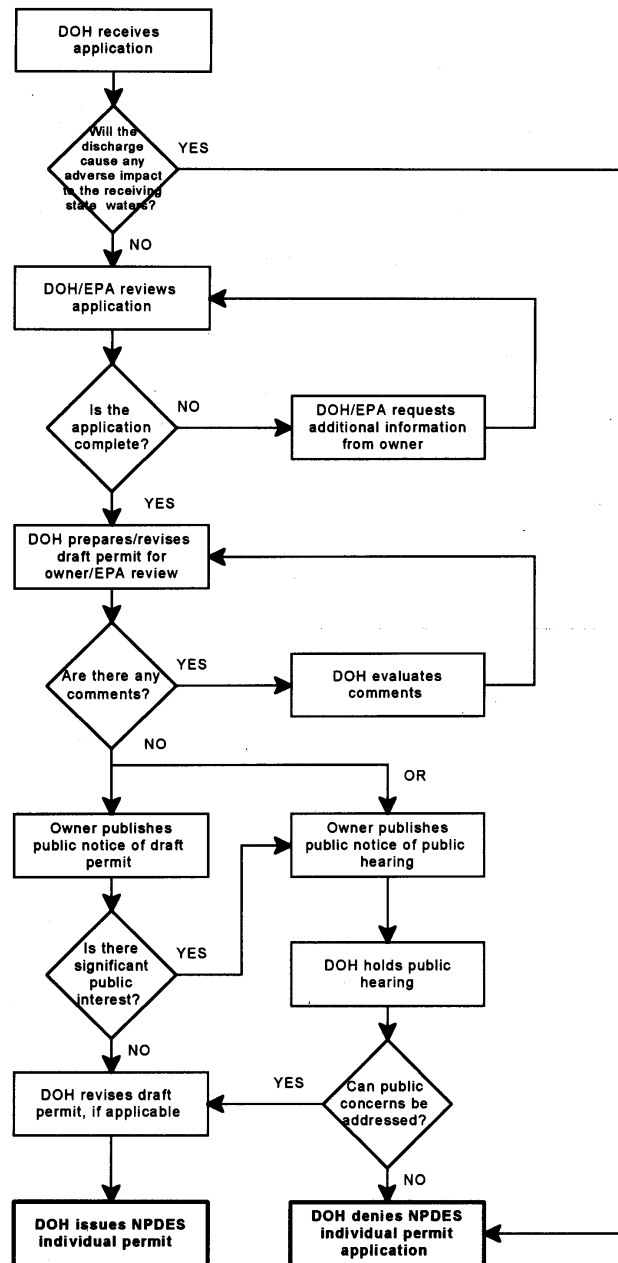


Individual NPDES Permit

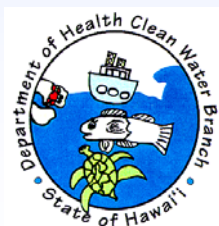
- Discharge does not qualify for general permit coverage
- Custom made
- 180 days or more to process (with complete application)
- \$1000 filing fee
- Applicant responsible for publication fee
- Good up to five (5) years



NPDES Individual Permit Processing Flowchart



06-17-97



To streamline NPDES permit process

- Hawaii adopted 11 general permits, three (3) of the general permits are related to storm water discharges.



NPDES General Permit

Appendix B - Storm water associated with industrial activities

Appendix C - Storm water associated with construction activities

Appendix D - Treated effluent from leaking Underground Storage Tank remedial activities

Appendix E - Once through cooling water less than one (1) million gallons per day



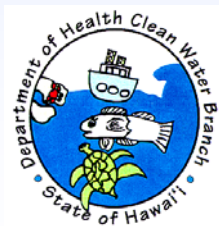
NPDES General Permit (continued)

Appendix F - Hydrotesting water

Appendix G - Construction dewatering

Appendix H - Treated effluent from petroleum
bulk stations and terminals

Appendix I - Treated effluent from well
drilling activities



NPDES General Permit (continued)

Appendix J – Occasional or Unintentional
Discharges from Recycled Water Systems

Appendix K – Discharges of Storm Water
from Small Municipal Separate Storm
Sewer Systems

Appendix L – Discharges of Circulation
Water from Decorative Ponds or Tanks



After the Storm

**A Video Co-produced by EPA
and The Weather Channel**

Notice of Intent

- Is a form used to apply for a coverage under a general permit
- Each general permit has its own Notice of Intent form (e.g. CWB-NOI Form B, CWB-NOI Form C, and CWB-NOI Form G)



Notice of Intent
Form B
for
General Permit Coverage
Authorizing Discharges of Storm
Water Associated With Industrial
Activities



Notice of Intent Form B

Common Errors

- Item 5.c. – Receiving State Water Information
 - If there is more than one discharge point, provide a list of the discharge point coordinates on a separate sheet
 - If the storm water discharges into a separate storm sewer system, a permit, license or approval is required from the owner of the system



Notice of Intent Form B

Common Errors (Continued)

- Item 7. – Non-Storm Water Information
 - List all sources of non-storm water that may be generated at the site/facility (e.g. vehicle/equipment/pavement wash water, water used for dust control and irrigation, process water, etc.). Need to provide all possible sources of the non-storm water and their control measures to prevent its discharge.
 - If structural control measures are used to prevent non-storm water from being discharged, show their location(s) on the site map and provide a description with details showing the control measures.



Notice of Intent Form B

Common Errors (Continued)

- Item 8. – Location Map
 - Label the locations of the discharge point as provided in Item 5.a. (receiving water) and 5.c. (drainage system) on the location map



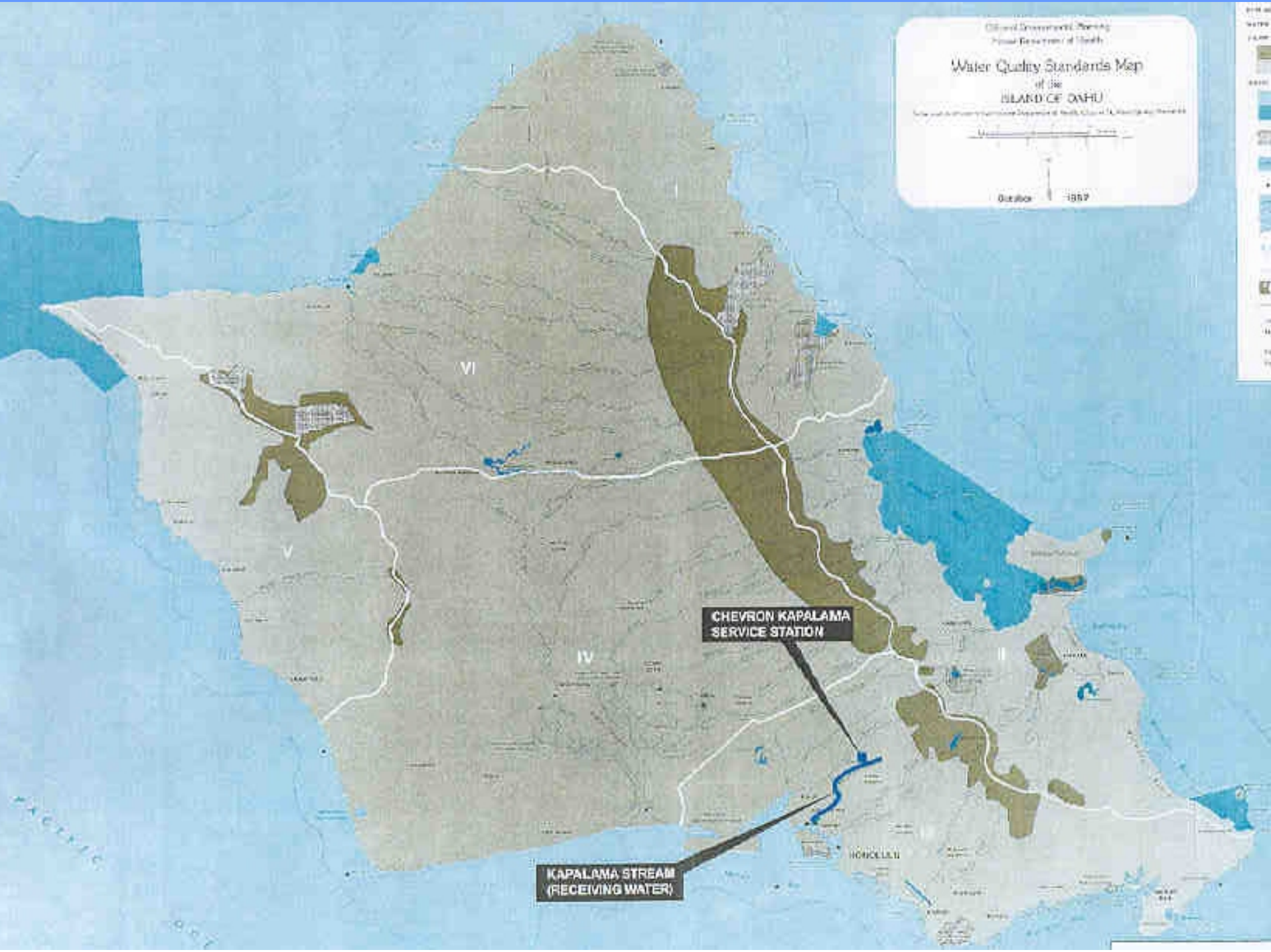
Official Government Planning
Hawaii Department of Health

Water Quality Standards Map of the ISLAND OF OAHU

Scale: 1 inch = 10 miles (1:625,000)



October 1997



**CHEVRON KAPALAMA
SERVICE STATION**

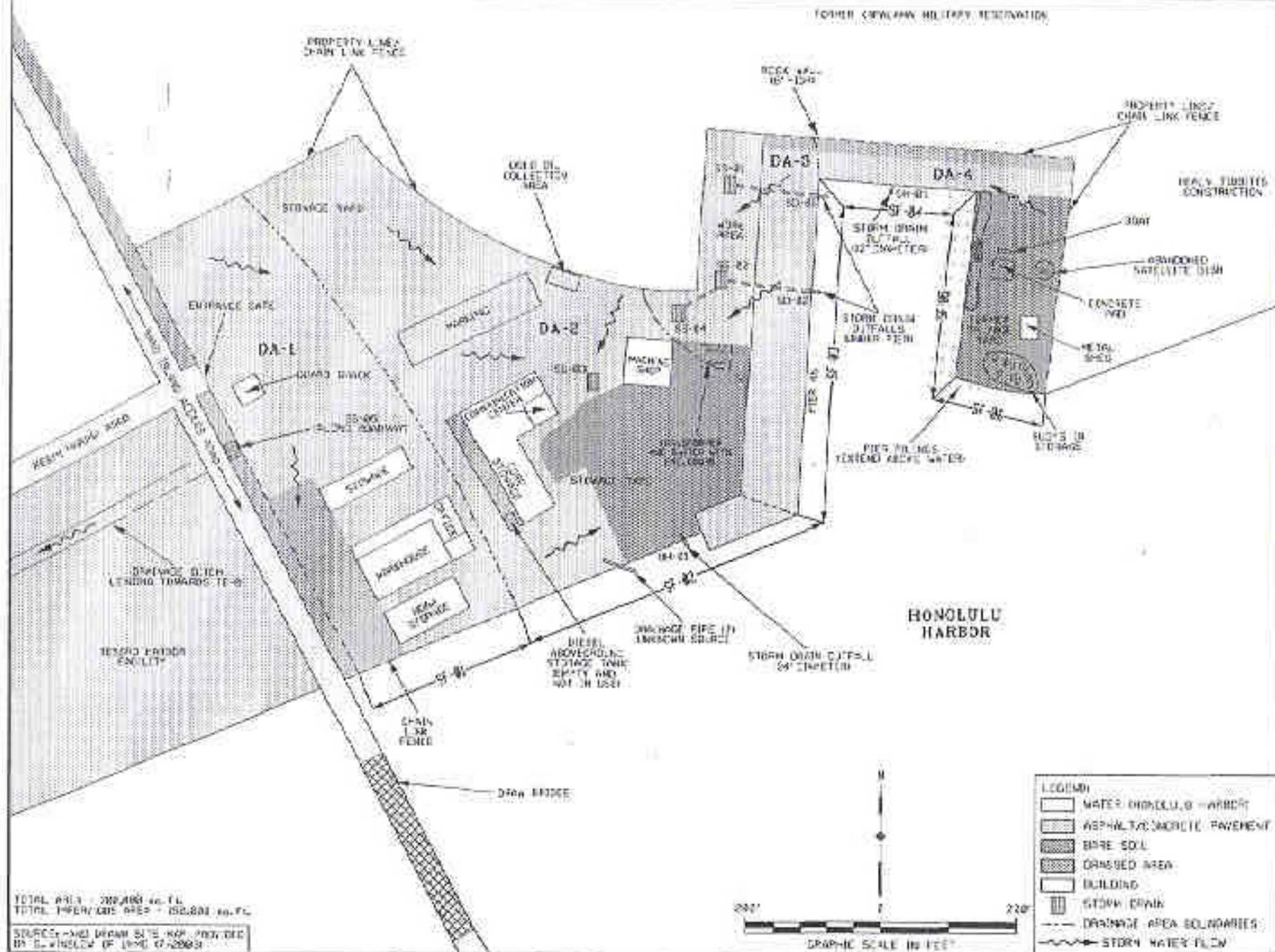
**KAPALAMA STREAM
(RECEIVING WATER)**

Notice of Intent Form B

Common Errors (Continued)

- Item 14. – Site Map
 - Show the site's drainage pattern with flow arrows within the site, including along the property lines/boundaries.
 - Show the drainage areas (highlighted/hatched and labeled) corresponding to each discharge point.





Notice of Intent Form B

Common Errors (Continued)

- **Items 18 and 19 – Water Quality Parameters and Toxic Parameters**
 - The test methods shall be in accordance with the Code of Federal Regulations (CFR), Title 40, Part 136 and the Method Detection Limits (MDL) should be below the State's numeric limitations or be the lowest achievable MDL closest to the State's numeric limitations.
 - When the facility is applying for renewal, the facility will have to submit test results for all parameters as listed in Item 18, not just the parameters as required in the existing permit.



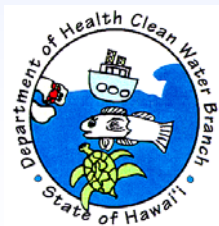
Notice of Intent Form B

Common Errors (Continued)

- Others
 - Only the person certifying the NOI or the owner's authorized representative shall submit information. Any correspondence shall include the certification statement and original signature.



Notice of Intent
Form C
For
General Permit Coverage
Authorizing Discharges of Storm
Water Associated With
Construction Activities



When is an NPDES permit required for construction activities?

- An NPDES permit is required for any construction activities, including clearing, grading, and excavation, that result in the disturbance of **one acre or more** of total land area under a larger common plan of development or sale, **and**
- **Prior to commencement** of construction activities.



Construction Activities Larger Common Plan of Development or Sale

- A "larger common plan of development or sale" is a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under one plan.



The “Plan” in a Common Plan of Development or Sale

- The “plan” is broadly defined as any announcement or piece of document (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot.



County-Approved Erosion and Sediment Control Plan

- A county-approved erosion and sediment control plan as appropriate for the activity and a schedule for implementing each control shall be submitted to the director **with the notice of intent or 30 days before the start of construction activities.**
- Construction may start before the end of the 30 days period as soon as the department accepts the county-approved erosion and sediment control plan.



Site-Specific Construction Best Management Practices Plan

- A site-specific construction Best Management Practices (BMP) plan shall be submitted to the director with the notice of intent or 30 days before the start of construction activities.
- Construction may start before the end of the 30 days period as soon as the department accepts the plan.

Notice of Intent Form C

Common Errors

- Item 5 – Receiving State Waters Information
 - Indicate “and Estuary” or ”and Embayment” if an estuary or embayment condition exists.
 - Written approval allowing discharges into the separate storm drainage, even if the applicant is the owner.



Outfall I.D. No.: Rte. _____ M.P. _____ (for office use) (NPDES)	NPDES File No. HIR10B320 (DOH)
---	--------------------------------------

PERMIT TO DISCHARGE INTO THE STATE HIGHWAYS DRAINAGE SYSTEM

Application Date 9-9-, 2002

Pursuant to Hawaii Administrative Rules, Chapter 11-55, application is hereby made to discharge into the State Highway drainage system at the location(s) specified below and at no other place.

1. Name of Highway/Route No: Kuhio Highway/Route 56 and Kaumualii Highway/Route 50
2. Tax Map Key: No TMK number assigned to Kuhio Highway and Kaumualii Highway. Highways located along the following Plats: 1-2-02,06,13; 1-3-01,03,04,05,10,11; 1-6-05,06,07,08,09,10; 1-6-05,06,07,08,09,10; 1-7-05,06; 1-8-02,05,07,08; 1-9-05,06,07,10;
2-1-01,03,04,05,06,07,08,09; 2-2-01,02; 2-3-01,02,03,04,12; 2-4-01,07,11,12,13; 2-5-01,03,04,05,06,07,09,11; 2-7-01,02,03,05,06,07,08; 2-8-01
3-3-02,03,04,05,06,10,11; 3-4-01,05,06,07; 3-6-05,06; 3-7-01,04,07; 3-8-03,04,05,06,07,08,09,14
3. Location: Kuhio Highway (from Maalo Road to Rice Street) and Kaumualii Highway (from Rice Street to Akialoa Road) Note: Attached drawings show drainage outlets highlighted in blue.
(Project name: SIC Fiber Optic Project-Hanamaulu to Kekaha)

4. Type of Discharge (check one):
☐ Storm water associated with industrial activities ☐ Construction activity dewatering
☒ Storm water associated with construction activities ☐ Hydrotesting
☐ Others
(Describe) _____

Licensee*, the undersigned, hereby agree to the following:

1. That Licensee shall indemnify and hold the State free and harmless from all suits and actions resulting from the licensee's discharge operations.
2. That Licensee shall provide appropriate best management practices and/or treatment devices for the removal of soil particles, and/or other pollutant(s) in the discharge, and such discharge shall meet the basic water quality criteria applicable to all waters, as identified in Section 11-54-4, and/or any other applicable sections in Chapter 11-54, Hawaii Administrative Rules, at the point of discharge into State waters.
3. That Licensee shall obtain a National Pollutant Discharge Elimination System (NPDES) permit as required by the State Department of Health and submit a copy to the State Department of Transportation Highways Division.
4. That a copy of effluent monitoring required by the NPDES permit shall be furnished to the State Department of Transportation Highways Division.

5. That Licensee shall make all restorations to any State Highway property damaged during the Licensee's discharge operations in accordance with the State Department of Transportation Highways Division requirements.
6. That Licensee shall discontinue the discharge should the State Department of Health determine that the receiving waters are being polluted, or the discharge does not meet the effluent requirements of the NPDES permit, or the Licensee's operations are not in the best interest of the general public. In addition, the Licensee shall be liable for any and all penalties as a result of discharges from the Licensee's system.
7. That if the State Department of Transportation Highways Division determines that any materials or substances from the Licensee's discharge operations have settled into any storm sewer, Licensee shall immediately remove and clear any material and substance to the satisfaction of the State Department of Transportation Highways Division.
8. That Licensee shall inspect and clean the State Highway drainage system prior to discharging.
9. That Licensee shall notify the District Engineer at least 24 hours before commencing discharge and at the conclusion of the discharge operation to arrange for necessary inspectional services at telephone number 274-3111.
10. The Licensee shall require this permit to be a part of the contract with the contractor.

 8/29/02
Signature of Licensee Date

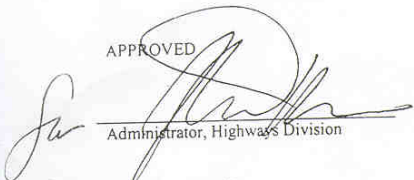
Kauhi Keliaa
Print Name and Title

Sandwich Isles Communications, Inc.
Company Name

1001 Bishop Street, Pauahi Tower, 27th Floor
Company Address

Honolulu, Hawaii 96813
City, State, Zip Code

(808) 524-8400
Telephone No.

APPROVED
 9/9/02
Administrator, Highways Division Date

Hwy-K Permit No. SDD-02001

Work Started: _____

Work Completed: _____

Inspector: _____

*Licensee shall be the owner or authorized representative of the owner applying for the permit.

Attach: Drain Connection Plans (3 sets)

Notice of Intent Form C

Common Errors (Continued)

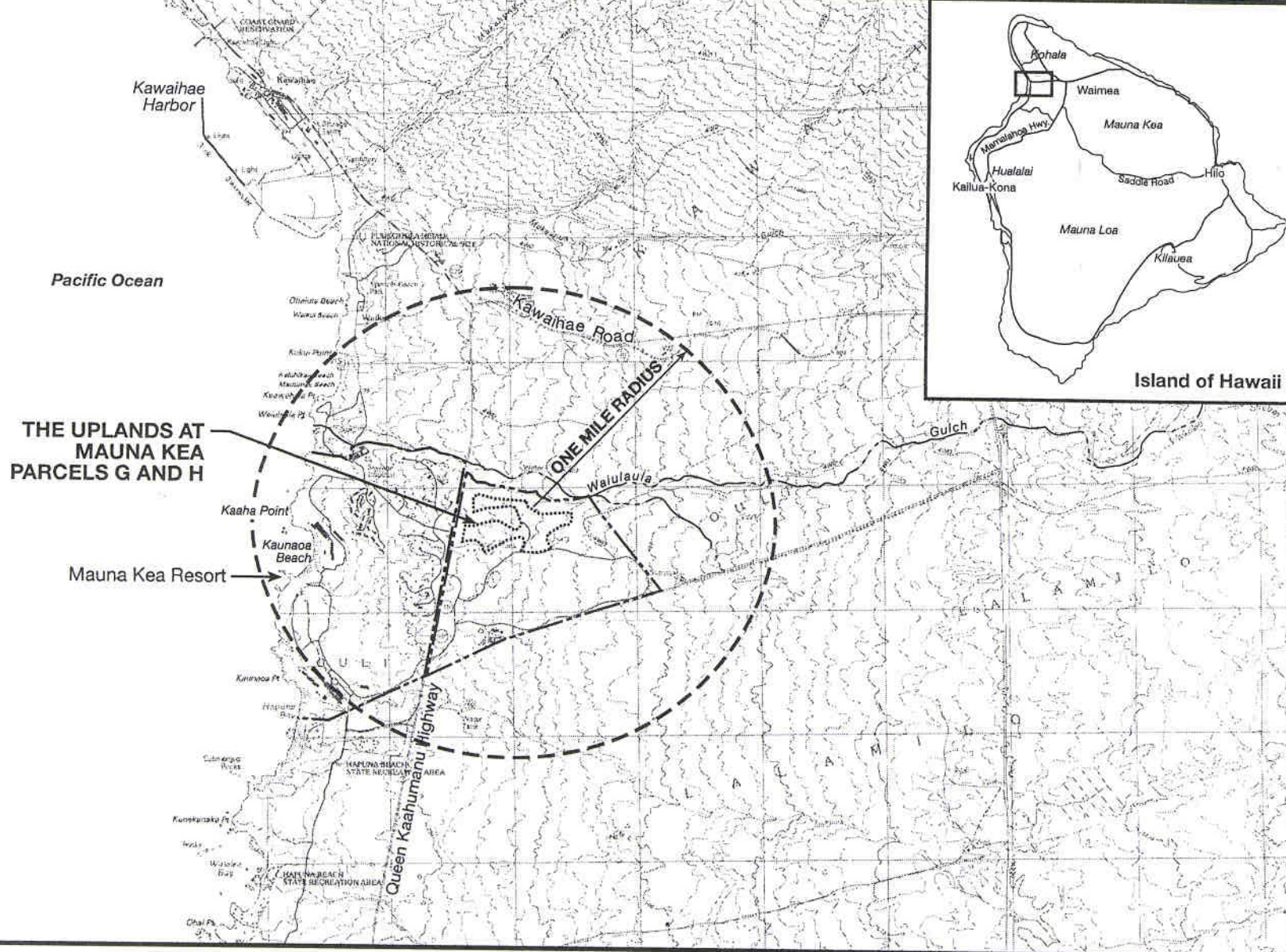
- Item 7 – Non-Storm Water Information
 - Identify all the sources of non-storm water (e.g. hydrotesting, dewatering, dust control water, irrigation water, equipment/vehicle wash water, concrete truck drum wash water, concrete curing water, left over or rejected concrete, high pressure wash water.
 - Provide the handling/disposal method(s) so that the non-storm waters will not be discharged directly or indirectly (commingle with storm water) into State waters.

Notice of Intent Form C

Common Errors (Continued)

- Item 8 – Location maps
 - Provide a map showing at least one (1) mile beyond the project boundaries and location of the project site in relation to the island.
 - Provide a site map identifying and numbering each storm drainage inlet (w/ coordinates) that may receive discharge from the project.





NORTH

0 2000 4000



SCALE IN FEET

**Figure 1
PROJECT LOCATION**

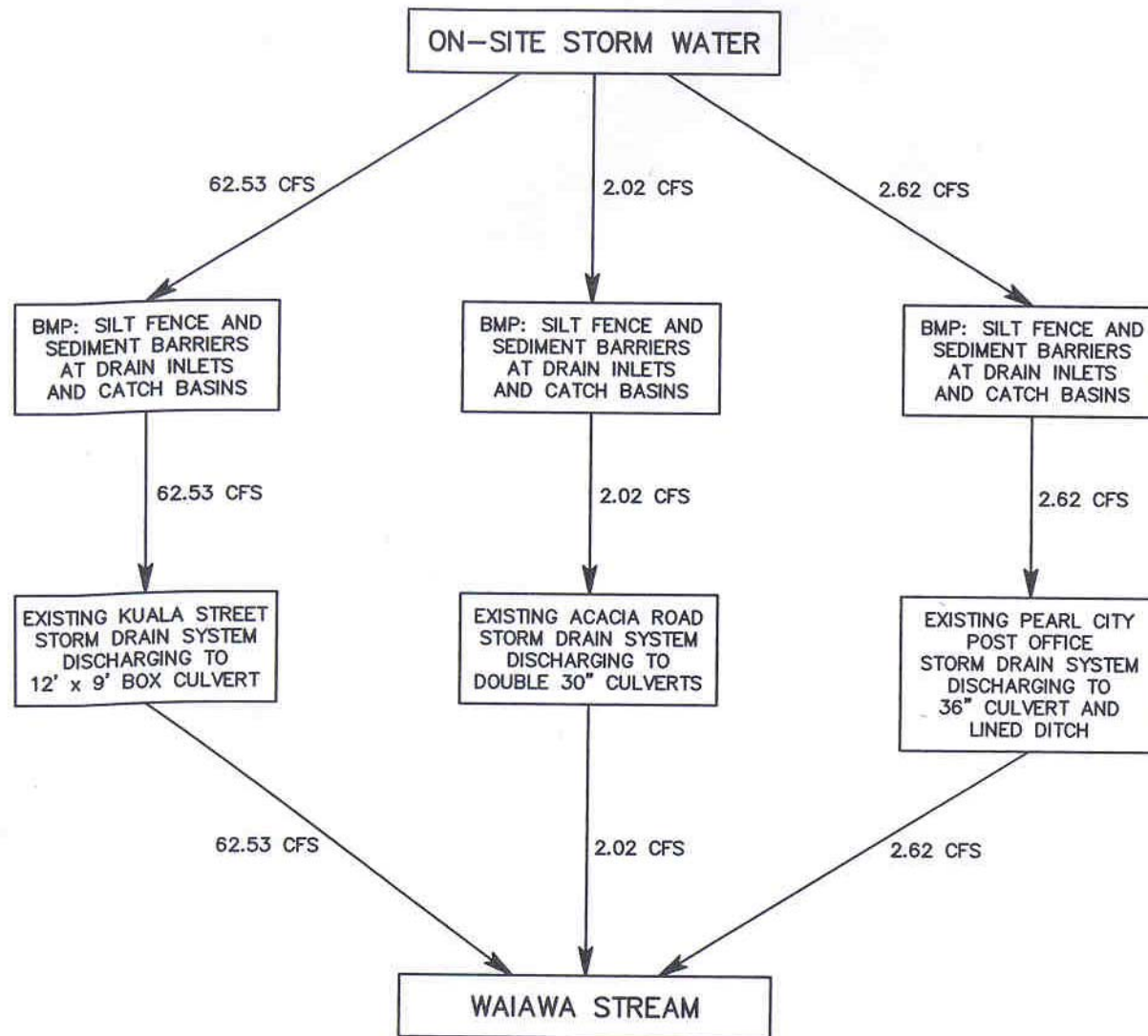
The Uplands at Mauna Kea Parcels G and H
NPDES-NOI Form C
May 2004

Notice of Intent Form C

Common Errors (Continued)

- Item 9 – Flow Chart
 - Provide a flow chart indicating how the storm water flows flow the project site and include the approximate amount of flow at each stage. Indicate any treatment or erosion control used.
 - See Guidelines for CWB-NOI Form C for an example of the flow chart.





Notice of Intent Form C

Common Errors (Continued)

- Item 10 – Existing or Pending Permits, Licenses, or Approvals
 - Provide a copy of the acknowledgement from the Department of Land and Natural Resources (DLNR), State Historic Preservation Division (SHPD) indicating that a copy of NOI has been submitted to them. If an acknowledgement from DLNR is not received when the NOI was submitted, provide a copy of the transmittal letter to DLNR SHPD.





STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING, ROOM 555
601 KAMOKILA BOULEVARD
KAPOLEI, HAWAII 96707

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON
DEPUTY DIRECTOR - LAND

ERNEST Y.W. LAU
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

HAWAII HISTORIC PRESERVATION DIVISION REVIEW
NPDES PERMIT APPLICATION

MAY 21 2004

Log #: 2004.1447
Doc #: 0405EJ06

Applicant/Agency: ~~Best Buy Company~~
~~Costco Wholesale Corporation~~
Address: ~~2016 S. King Street~~
Honolulu, Hawaii 96826

SUBJECT: Chapter 6E-42 Historic Preservation Review Notice of Intent to Be Covered
Under NPDES General Permit for Best Buy Company at Iwilei

Ahupua'a: Iwilei
District, Island: Kona, O'ahu
TMK: (1) 1-5-012:012 and 014

1. ☐ This project has undergone state or federal historic preservation review.
☐ a. mitigation has been completed
☐ b. other

2. ☒ We have not been consulted on this undertaking, however we believe there are no historic properties present, because:
☐ a) intensive cultivation has altered the land
☒ b) residential development/urbanization has altered the land
☒ c) previous grubbing/grading has altered the land
☐ d) an acceptable archaeological assessment or inventory survey found no historic properties
☒ e) other: The area is comprised of fill soils. No historic properties have been identified during the recent re-development of the Ala Kawa Street commercial area (Home Depot, Costco etc.)

☒ Thus, this letter serves as our "no historic properties affected" determination since we believe this undertaking will have no effect on significant historic properties.

Aloha,

P. Holly McElDowney

P. Holly McElDowney, Acting Administrator
State Historic Preservation Division

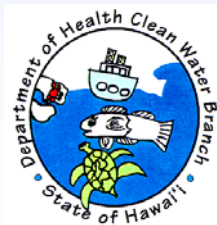
In the unlikely event that historic sites, including human burials, are uncovered during routine construction activities, all work in the vicinity must stop and the State Historic Preservation Division must be contacted at 692-8015.

RECEIVED

Notice of Intent Form C

Common Errors (Continued)

- Item 15 – Construction Best Management Practices (BMP) Plan
 - Show the drainage patterns from the project site (including offsite areas adjacent to the project boundaries) to the State receiving water with flow arrows.
 - Show the locations and descriptions of all structural controls including those that will be used to divert the offsite storm water from flowing into the construction site.



EROSION CONTROL NOTES

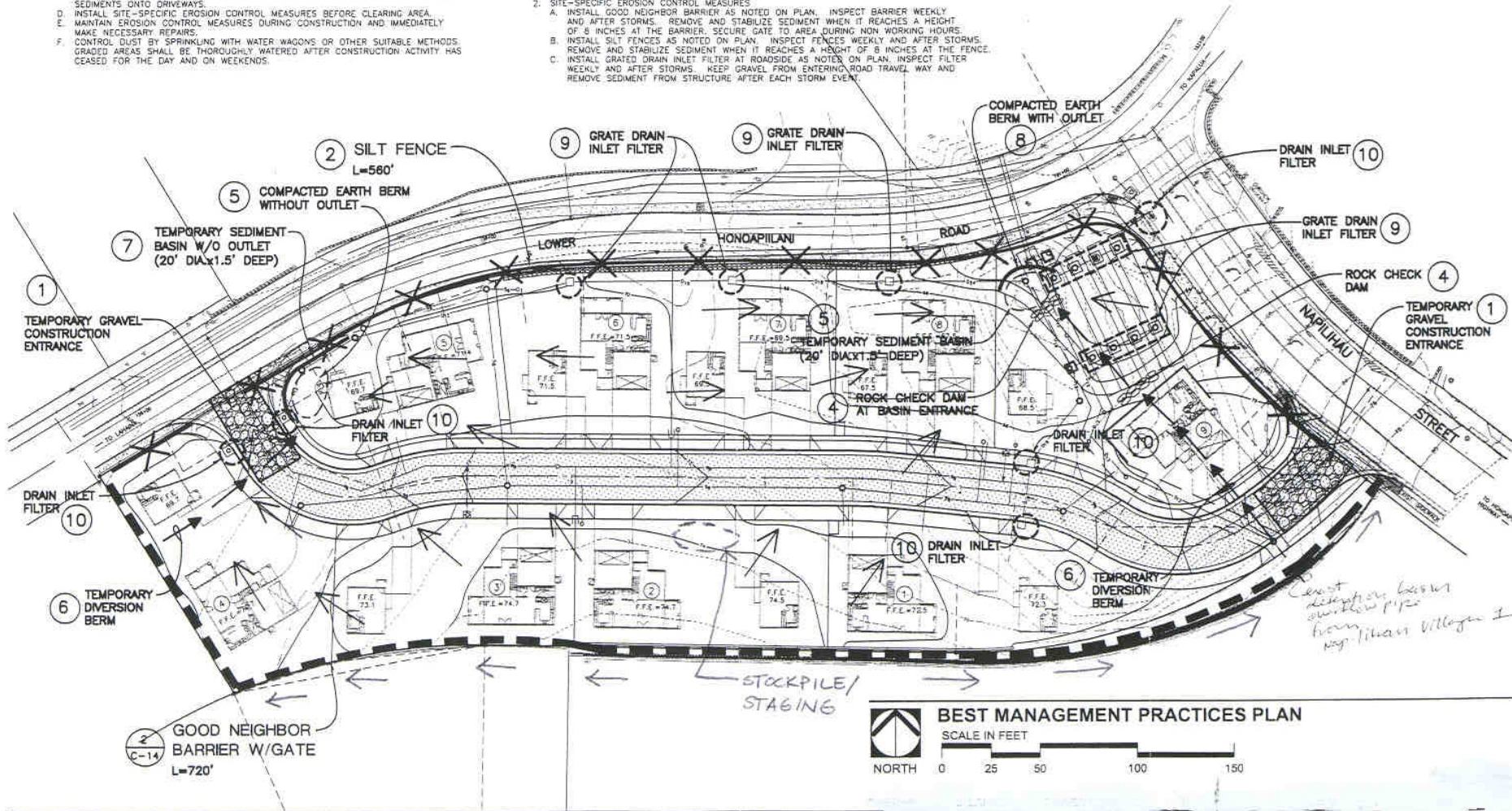
THE FOLLOWING IS AN OUTLINE OF THE EROSION CONTROL MEASURES THAT WILL BE IMPLEMENTED FOR THIS PROJECT.

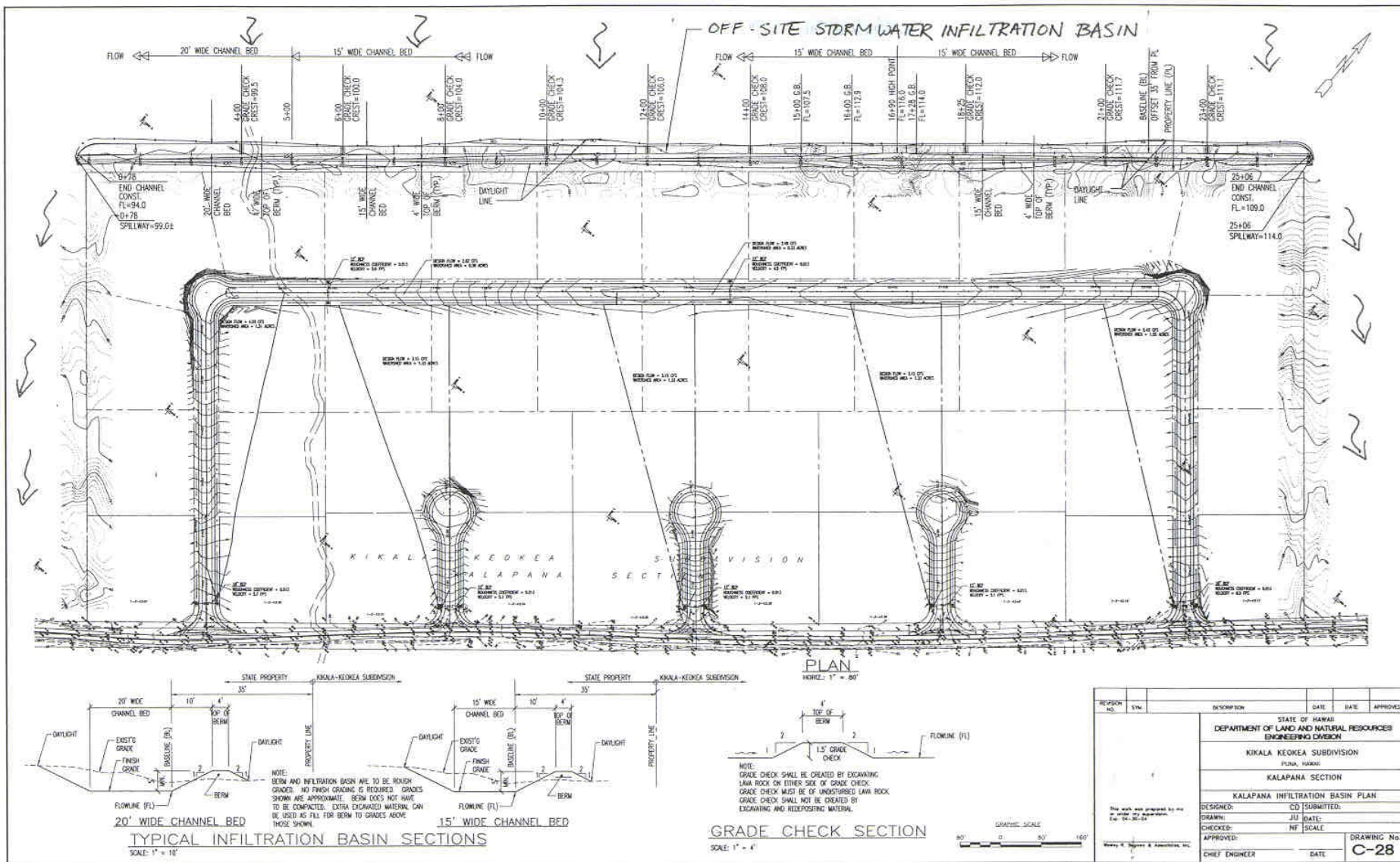
1. GENERAL EROSION CONTROL MEASURES

- A. MINIMIZE TIME OF CONSTRUCTION.
- B. RETAIN EXISTING GROUND COVER UNTIL THE LATEST DATE TO COMPLETE CONSTRUCTION.
- C. PROVIDE TEMPORARY GRAVEL APRON(S) (APPROXIMATELY 20' LONG BY 20' WIDE) AT POINT(S) OF CONNECTION TO EXISTING PAVED DRIVEWAYS TO PREVENT TRACKING OF SEDIMENT ONTO DRIVEWAYS.
- D. INSTALL SITE-SPECIFIC EROSION CONTROL MEASURES BEFORE CLEARING AREA.
- E. MAINTAIN EROSION CONTROL MEASURES DURING CONSTRUCTION AND IMMEDIATELY MAKE NECESSARY REPAIRS.
- F. CONTROL DUST BY SPRINKLING WITH WATER WAGONS OR OTHER SUITABLE METHODS. GRADED AREAS SHALL BE THOROUGHLY WATERED AFTER CONSTRUCTION ACTIVITY HAS CEASED FOR THE DAY AND ON WEEKENDS.

2. SITE-SPECIFIC EROSION CONTROL MEASURES

- A. USE TEMPORARY BERMS AND CUT-OFF DITCHES, WHERE NEEDED, FOR CONTROL OF EROSION.
- B. CONSTRUCT PERMANENT EROSION AND DRAINAGE CONTROL FEATURES AS EARLY AS POSSIBLE. ALL CUT AND FILL SLOPES SHALL BE SOODED OR PLANTED IMMEDIATELY. GRADING WORK HAS BEEN COMPLETED.
- C. MAINTAIN EROSION CONTROL MEASURES UNTIL ESTABLISHMENT OF GRASS AND LANDSCAPE PLANTING.
- D. INSTALL GOOD NEIGHBOR BARRIER AS NOTED ON PLAN. INSPECT BARRIER WEEKLY AND AFTER STORMS. REMOVE AND STABILIZE SEDIMENT WHEN IT REACHES A HEIGHT OF 6 INCHES AT THE BARRIER. SECURE GATE TO AREA DURING NON WORKING HOURS.
- E. INSTALL SILT FENCES AS NOTED ON PLAN. INSPECT FENCES WEEKLY AND AFTER STORMS. REMOVE AND STABILIZE SEDIMENT WHEN IT REACHES A HEIGHT OF 6 INCHES AT THE FENCE.
- F. INSTALL GRATED DRAIN INLET FILTER AT ROADSIDE AS NOTED ON PLAN. INSPECT FILTER WEEKLY AND AFTER STORMS. KEEP GRAVEL FROM ENTERING ROAD TRAVEL WAY AND REMOVE SEDIMENT FROM STRUCTURE AFTER EACH STORM EVENT.

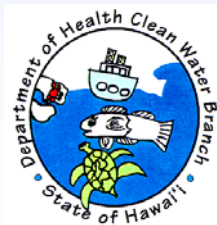


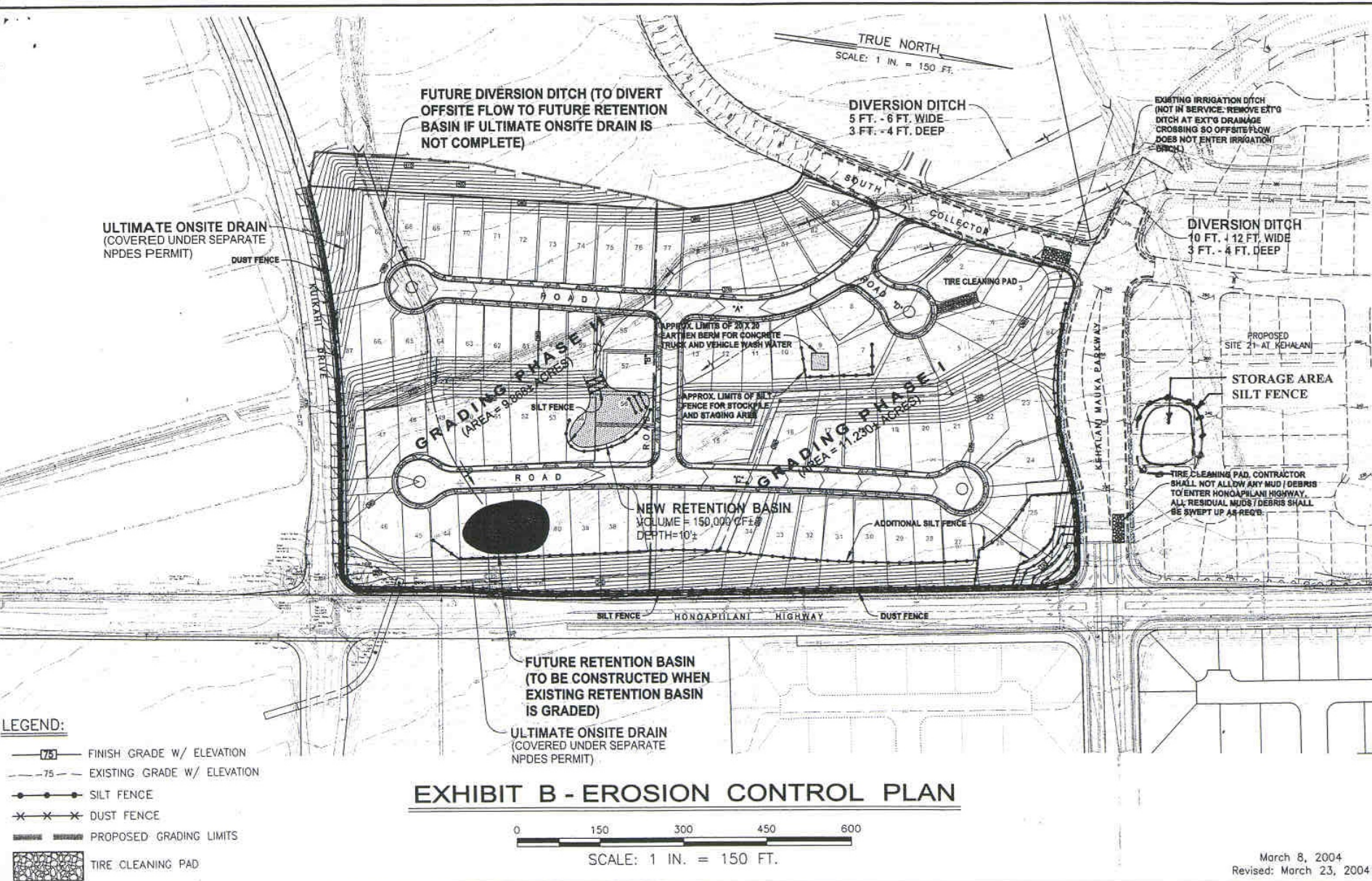


Notice of Intent Form C

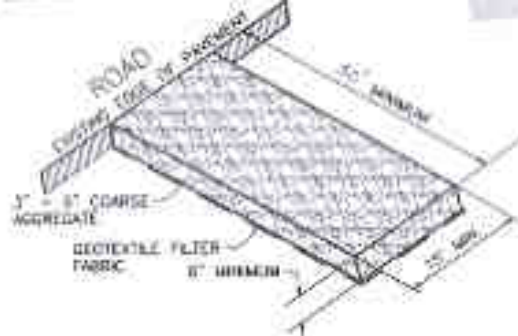
Common Errors (Continued)

- Item 15 – Construction Best Management Practices (BMP) Plan (continued)
 - Provide details and typical sections (with dimensions) for all BMPs, including the drain/catch basin inlet protection, silt fencing, concrete chute wash basin, etc.
 - Provide a plan/drawing showing and calling out the locations for the storage areas, concrete drum washouts, vehicle/equipment wash, and any other locations that may generate pollutants. Provide details of the containment area, including capacity, for the concrete drum washout and vehicle/equipment wash area.

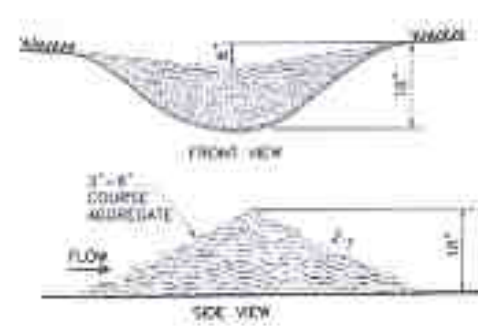




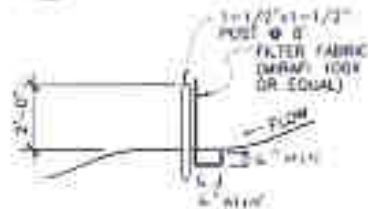
March 8, 2004
Revised: March 23, 2004



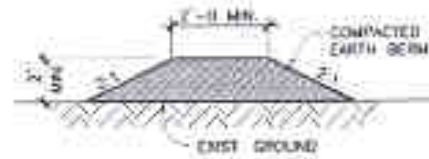
1 TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
NOT TO SCALE



4 ROCK CHECK DAM
NOT TO SCALE



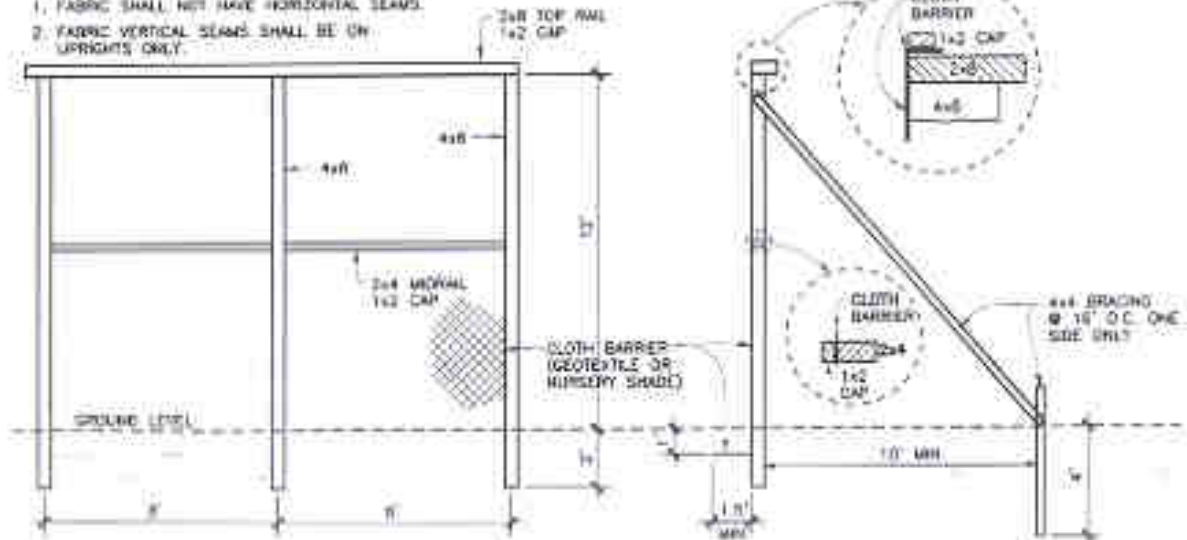
2 SILT FENCE SECTION
NOT TO SCALE



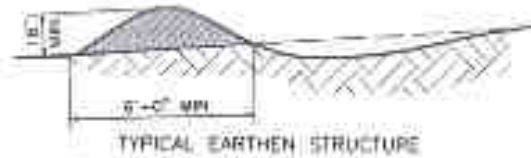
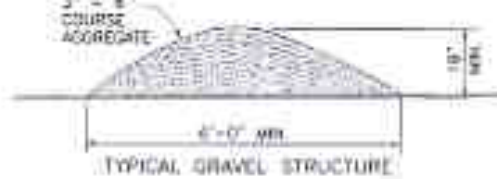
5 COMPACTED EARTH BERM WITHOUT OUTLET
NOT TO SCALE

NOTE:

1. FABRIC SHALL NOT HAVE HORIZONTAL SEAMS.
2. FABRIC VERTICAL SEAMS SHALL BE ON UPRIGHTS ONLY.



3 GOOD NEIGHBOR BARRIER (TYPICAL SECTION)
NOT TO SCALE



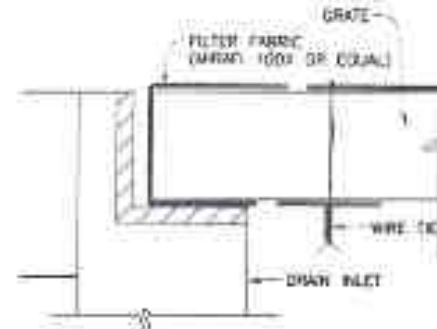
6 TEMPORARY DIVERSION BERM
NOT TO SCALE



7 TEMPORARY SEDIMENT BASIN
NOT TO SCALE



8 COMPACTED EARTH BERM WITH OUTLET
NOT TO SCALE

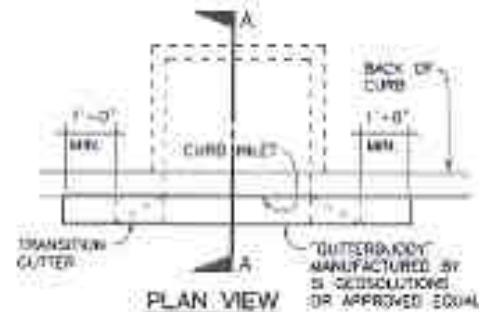


NOTE: WRAP DRAIN INLET GRATE WITH FILTER FABRIC AND FASTEN WITH WIRE TIES.

9 GRATE DRAIN INLET FILTER
NOT TO SCALE

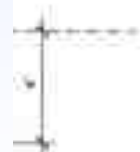


SECTION A-A



10 DRAIN INLET FILTER
NOT TO SCALE

#4 BRACING
1'-10" O.C. ONE
SIDE ONLY

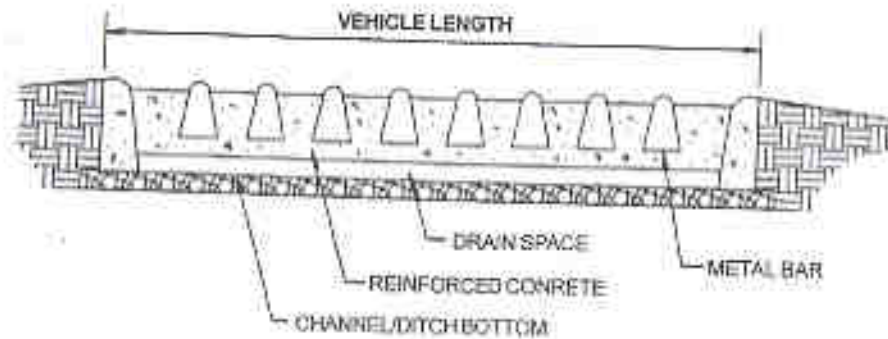
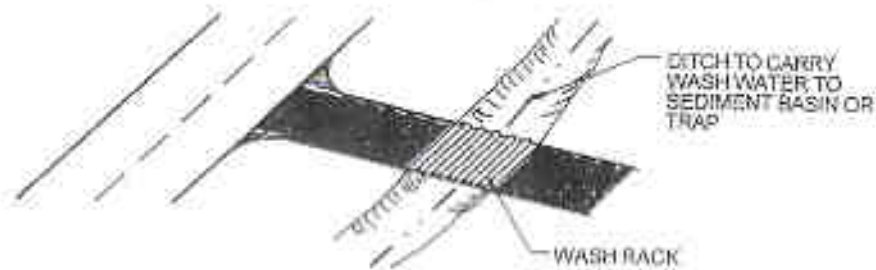


BEST MANAGEMENT PRACTICES DETAILS

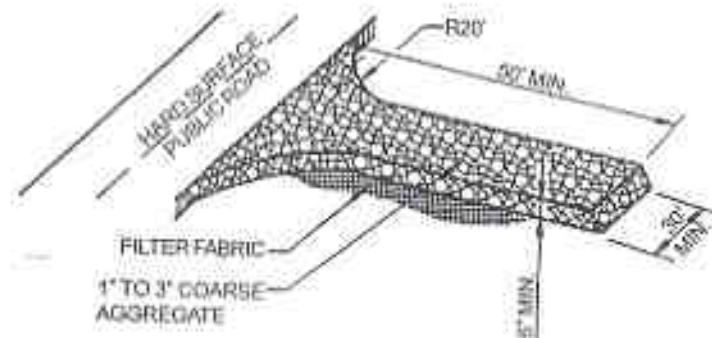
SCALE IN FEET



ADDITIONAL INFORMATION: STABILIZED CONSTRUCTION ENTRANCE



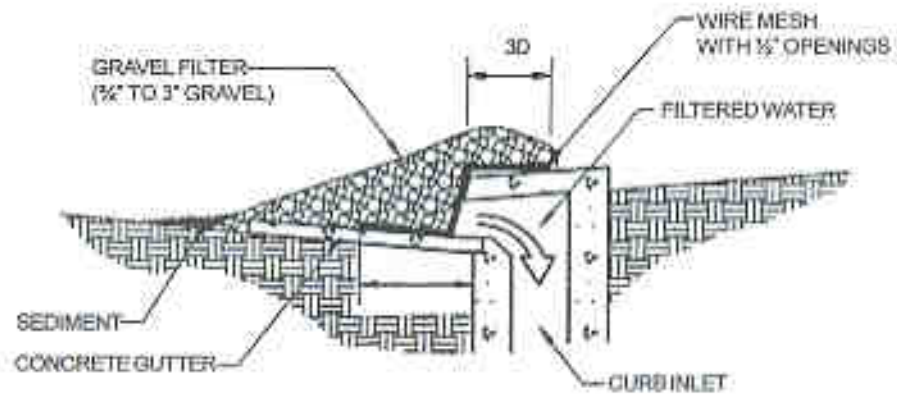
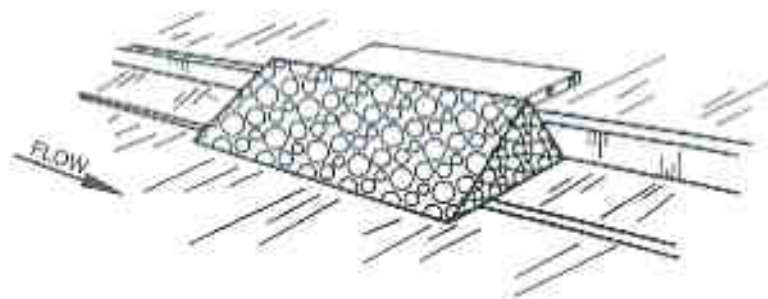
WASH RACK (SCHEMATIC)



STABILIZED CONSTRUCTION ENTRANCE

E8C24

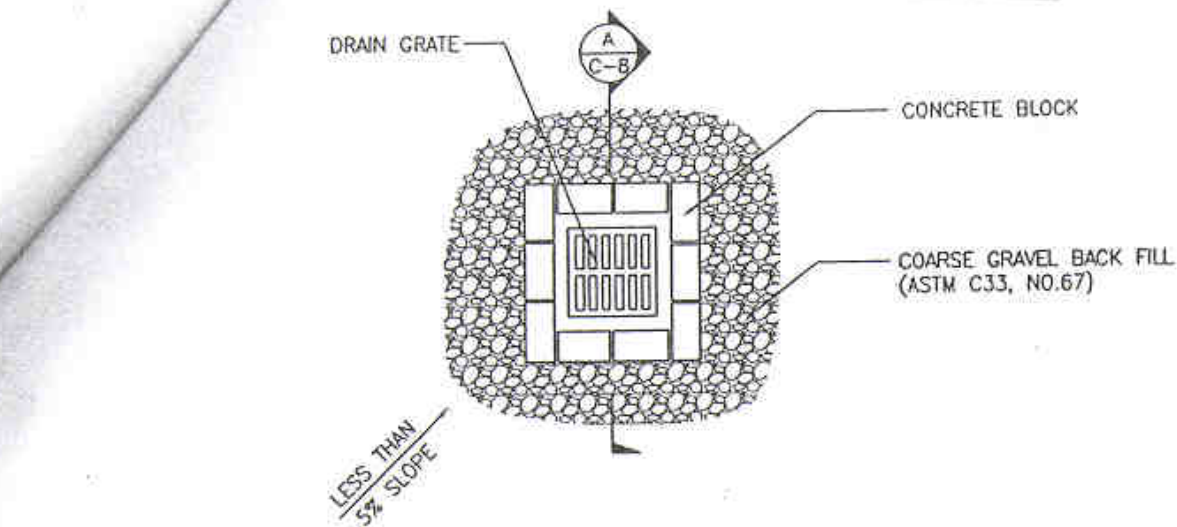




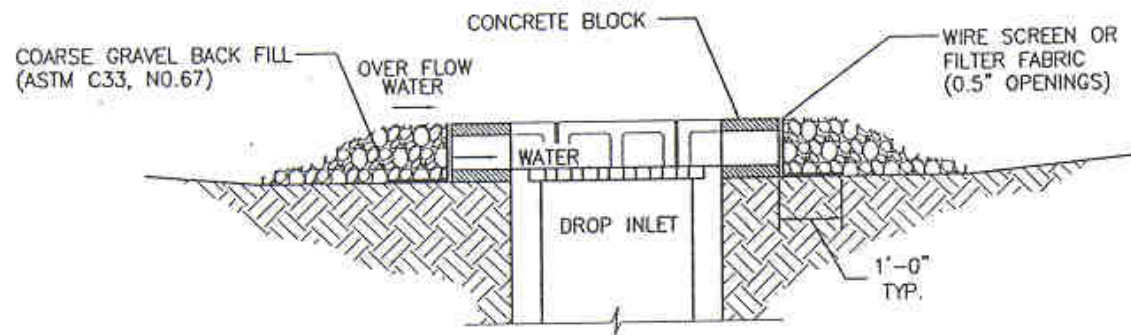
GRAVEL AND WIRE MESH FILTER FOR CURB INLET

ESC64





PLAN

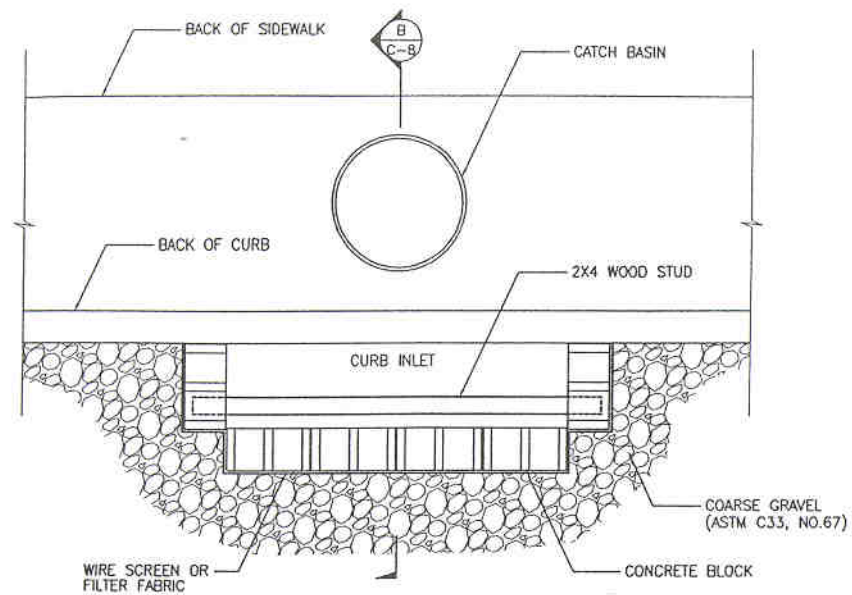


SECTION

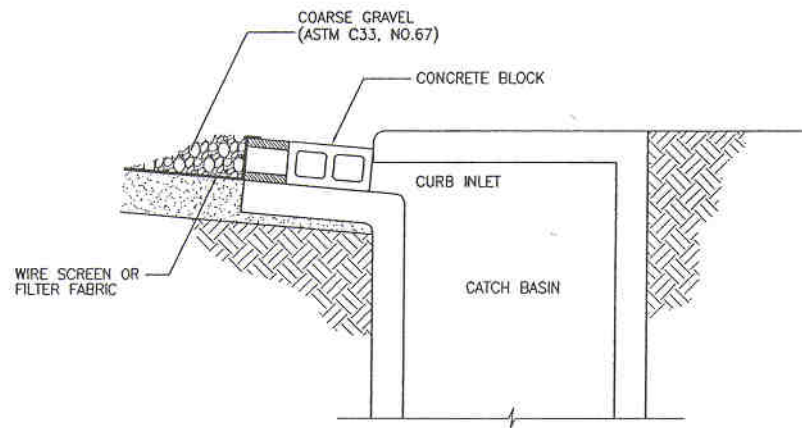


BLOCK AND GRAVEL FILTER @ DRYWELL DETAIL

NOT TO SCALE



PLAN



SECTION B
C-8

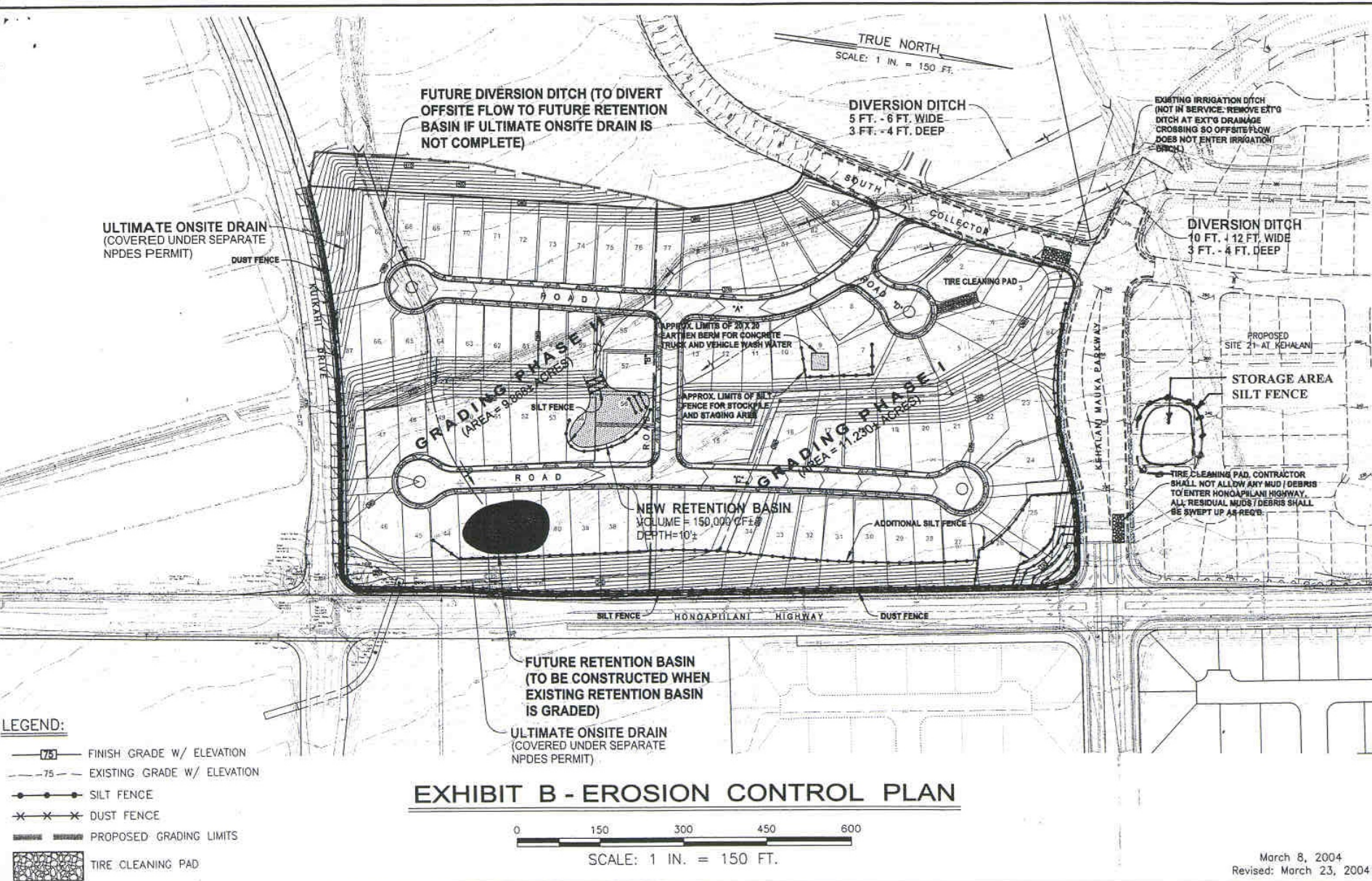
BLOCK AND GRAVEL CURB INLET FILTER DETAIL
NOT TO SCALE

Notice of Intent Form C

Common Errors (Continued)

- Item 15 – Construction Best Management Practices (BMP) Plan (continued)
 - Provide BMPs for any overflow from sediment basin and identify where overflow from the sediment basin will discharge to.





March 8, 2004
Revised: March 23, 2004

Notice of Intent Form C

Common Errors (Continued)

- Construction Entrance
 - Show the location on the site map.
 - Provide details of the entrance BMPs with dimensions
 - Properly size the entrance BMPs
 - Make sure that the construction entrance does not get buried in or with soil.



Notice of Intent Form C

Common Errors (Continued)

- Use of Underground Injection Well or Drywell for Disposal
 - Inform the State of Hawaii, Department of Health, Safe Drinking Water Branch at (808) 586-4258



Notice of Intent Form C

Common Errors (Continued)

- Miscellaneous

- Indicate “N/A” for any items that are not applicable.

- Notice of Intent

- One (1) copy for projects located on the island of Oahu with owner's original signature
 - Two (2) copies for projects located on islands other than Oahu and Hawaii (one with owner's original signature)
 - Three (3) copies for projects located on island of Hawaii (one with owner's original signature)



Notice of Intent Form C

Common Errors (Continued)

- Item 18 – Authorization of Representative
 - Item 18.a. -- authorized to process the NOI and authorization ends upon issuance of NGPC
 - Item 18.b. -- authorized to process the NOI and further to fulfill all the NGPC conditions except submittal of Notice of Cessation.
 - Item 18.c. -- only authorized to fulfill all the NGPC conditions except submittal of Notice of Cessation.



Notice of Intent
Form D
For
General Permit Coverage
Authorizing Discharges of
Treated Effluent From Leaking
Underground Storage Tank
Remedial Activities



Notice of Intent
Form E
For
General Permit Coverage
Authorizing Discharges of Once
through Cooling Water Less than
One (1) Million Gallons Per Day



Notice of Intent
Form F
For
General Permit Coverage
Authorizing Discharges of
Hydrotesting Waters



Notice of Intent Form F

Common Errors

- Item 11.e. Potential Pollutants and Its Sources
 - Silt from installation
 - Chlorine from disinfection
 - Petroleum hydrocarbons from existing fuel tank
- Item 15 Hydrotesting Best Management Practices (BMP) Plan



c. Date(s) on which the hydrotesting activities are expected to occur:

i. Begin hydrotesting activities

June 17, 2004

ii. End hydrotesting activities

June 21, 2004

d. Rates of Effluent Discharge

i. Estimated average daily flow rates

8,400

(efs/gpd)

ii. Estimated maximum daily flow rates

8,400

(efs/gpd)

iii. Total Quantity of Discharge

16,800

(gallons)

e. List the pollutants that may be present in the hydrotesting water before any treatment and provide an explanation of its origins.

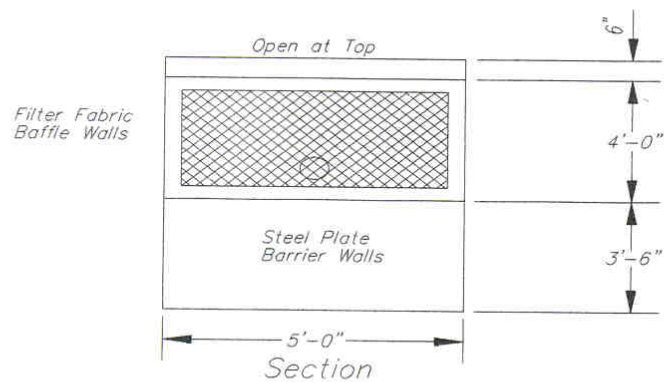
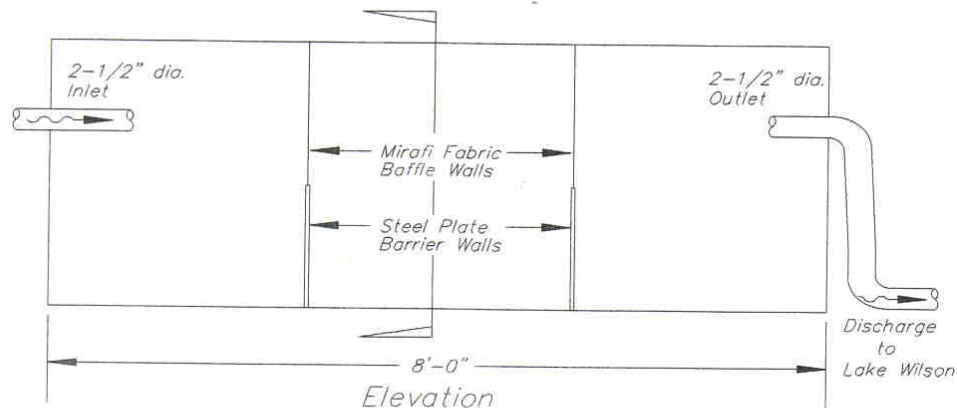
New Water Lines

Sediment, debris, chlorine and other suspended particles may be present in the hydrotest effluent during the initial pipe flushing procedure. No other pollutants are expected in the hydrotesting effluent.

12. Physical Hydrotesting Water Quality (see Guidelines for CWB-NOI Form F - Note 12)

a. Source of Hydrotesting Water

New Water Lines: Potable water used for pipe pressure tests and chlorination process.
See Attachment 2 ~ Mineral Analysis for Wahiawa Well



The filter fabric used in this sediment settling box will be Mirafi 140N.



Prepared for:
BOARD OF WATER SUPPLY
 CITY & COUNTY OF HONOLULU

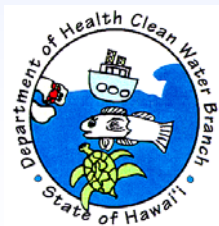
Cypress Avenue
 8" & 4" Water Mains
 Job No. 02-21
 WAIHAWA, OAHU, HAWAII
FILTER BOX



ParEn, Inc.
 dba Park Engineering
 Engineers, Surveyors, Planners

ATTACHMENT 4

Notice of Intent
Form G
For
General Permit Coverage
Authorizing Discharges
Associated With Construction
Dewatering



Notice of Intent Form G

Common Errors

- Item 5. – Receiving State Water Information
 - Unlike for storm water, this coverage is for **discharges** of construction dewatering effluent. Therefore, you need to provide a receiving State water.



5. Receiving State Water(s) Information (see Guidelines for CWB-NOI Form G - Note 5)

a. Receiving State Water Name: THERE WILL BE NO DISCHARGE TO STATE WATERS.

Discharge Point Coordinates into the Receiving State Water:

Latitude: N/A ° ' " N Longitude: N/A ° ' " W

Classification: (check the appropriate space(s))

Inland: Class 1 Class 2 Estuary

Marine: Class AA Class A Embayment

b. Are there additional discharge points into receiving State waters?

No X Yes If yes, provide the information requested in Item 5.a. on a separate sheet.

c. Does the discharge initially enter a separate storm water drainage system?

No X Yes If yes, provide the following information. Attach a separate sheet with the requested information if there is more than one (1) discharge point into the separate storm water drainage system.

(NOI C & F WERE SUBMITTED FOR HYDROTESTING AND STORM WATER)

i. Drainage System Owner's name: N/A

Notice of Intent Form G

Common Errors (Continued)

- Item 13.d. – Time frame of the proposed discharges
 - Describe the time frame of when the proposed discharges will take place during the work day (work hours, overnight, 24 hours a day, etc.)



Notice of Intent Form G

Common Errors (Continued)

- Item 19.a.ii. – Treatment design
 - Again, this coverage is for **discharges**.
Therefore, you need to describe how the discharge will enter State waters
 - Detailed descriptions of the treatment method, usually filtration systems
 - Detailed drawings of the system



Notice of Intent Form G

Common Errors (Continued)

- Item 19.a.iv. – Calculations used in the treatment design
 - Provide calculations used in **both**, estimating the dewatering flow rate and the adequacy of the treatment system.



Notice of Intent Form G

Common Errors (Continued)

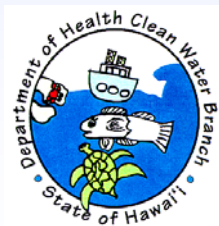
- Item 19.a.v. – Mitigative measures
 - Mitigative measures shall include the **corrective** action to be taken (i.e., add filter tank, increase sediment basin or tank volume, reduce flow quantity, etc.) when and if the construction dewatering effluent does not meet the conditions of the General Permit, basic and specific water quality criteria.



Notice of Intent Form G

Common Errors (Continued)

- Item 20.a.ii(5) – Sediment handling and disposal plan
 - Describe the handling (storage and transport) and disposal of both the sediment collected in the treatment system **and** the excavated material.



Notice of Intent Form G

Common Errors (Continued)

- Site-specific Plans
 - All site-specific plans shall be in accordance with how the contractor will conduct the operation, with details of location, dimensions, and procedures.



Notice of Intent
Form H
For
General Permit Coverage
Authorizing Discharges of
Treated Process Wastewater
Associated With Petroleum Bulk
Terminal Facilities



Notice of Intent
Form I
For
General Permit Coverage
Authorizing Discharges of
Treated Process Wastewater
Associated With Well Drilling
Activities



Notice of Intent
Form J
For
General Permit Coverage
Authorizing Occasional or
Unintentional Discharges From
Recycled Water System



Notice of Intent
Form K
For
General Permit Coverage
Authorizing Discharges of Storm
Water and Certain Non-Storm
Water From Small Municipal
Separate Storm Sewer System



Notice of Intent
Form L
For
General Permit Coverage
Authorizing Discharges of
Circulation Water From
Decorative Ponds or Tanks



How to Obtain Latest NPDES Applications, Forms and Guidelines?

- Individual permit applications
- General Permit Notice of Intent Forms
- Available at Clean Water Branch website
- <http://www.hawaii.gov/health/environmental/water/cleanwater/forms/index.html>
- NEW! Individual permit application for construction activities is available



Best Management Practices (BMPs)

- Erosion controls
- Sediment controls



What contributes to erosion?

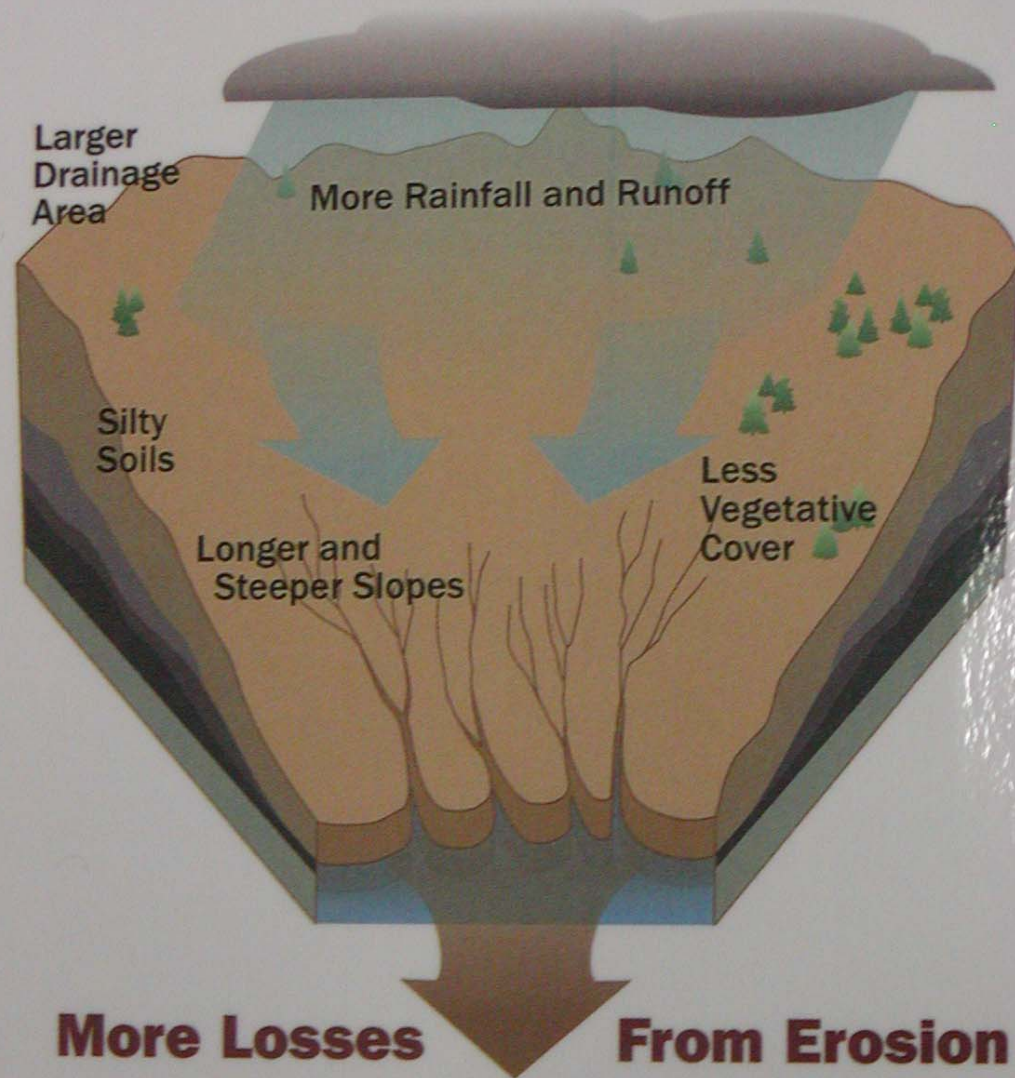
- Removing vegetation
- Removing topsoil and organic matter
- Reshaping the lay of the land
- Exposing subsoil to precipitation
- Failure to cover bare soil areas
- Allowing gullies to form and grow larger
- Removing vegetation along stream banks



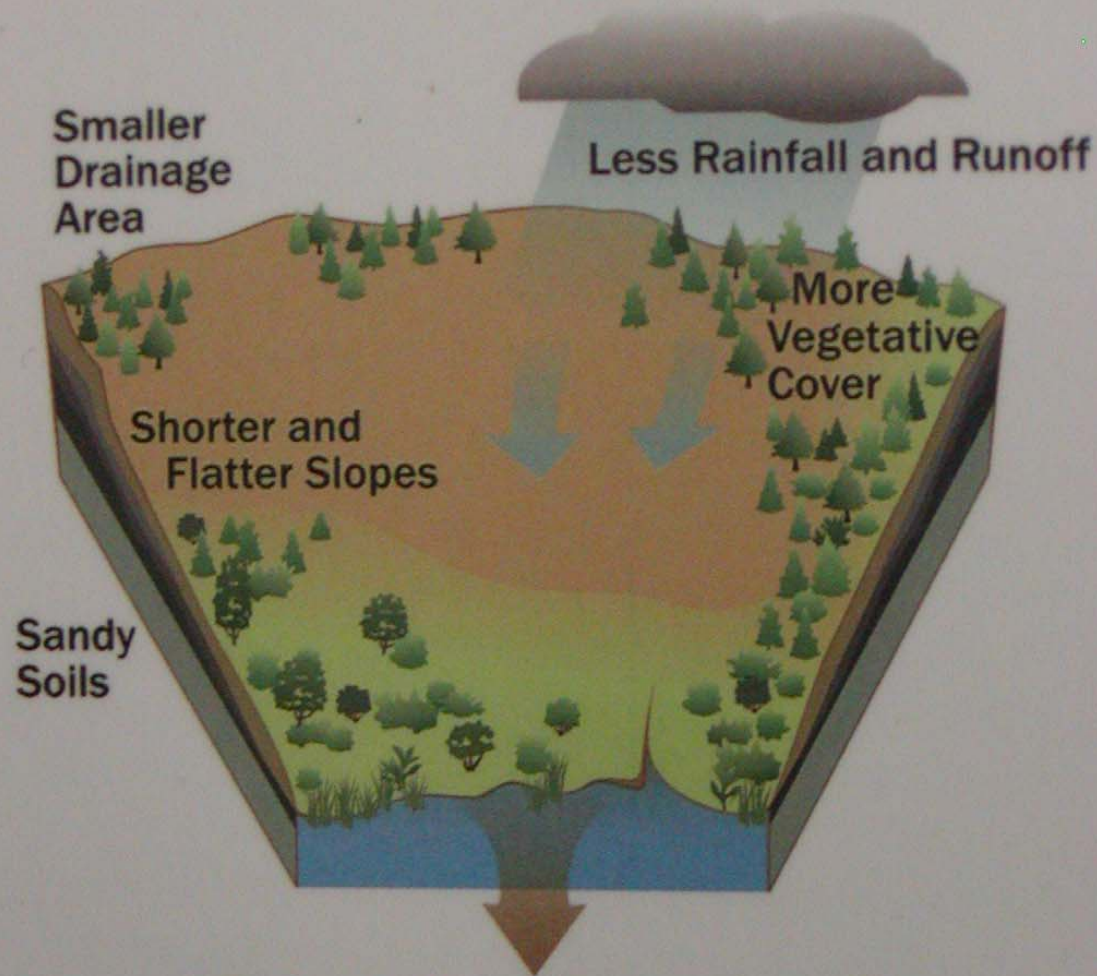
What other factors affect erosion?

- Rainfall frequency and intensity
- Slope (steep = more; flat = less)
- Soil structure and type of soil (silty = more erosion)
- Vegetation (more vegetation = less erosion)





Factors influencing erosion. Heavy rainfall, steep slopes, removal of most existing vegetation, and erodible soils result in higher soil losses from erosion.



Less Erosion Loss

Lower rainfall amounts, flatter slopes, preserving existing vegetation, and less erodible soils result in lower soil losses from erosion.

Erosion Control

- Any practice that protects the soil surface and prevents the soil particle from being detached by rainfall or wind.
- Erosion control is a **source control**.



Sediment Control

- Any practice that traps the soil particles after they have been detached and moved by water or wind.
- Sediment control measures are usually **passive systems** that rely on filtering or settling the particles out of water or wind that is transporting them.



Which are more effective?

- Erosion controls are preferred
 - Keep the soil in place
 - Enhance the protection of the site resources
 - When possible, use erosion controls as the primary protection, with sediment controls as a secondary system
 - Important! It is not adequate to rely solely on sediment control measures to keep sediment from leaving a site during the rainy season



Erosion and sediment controls for muddy runoff:

- Soak it in – maximize seeding and mulching
- Sift it out – use silt fences or other filters
- Slow it down – don't let gullies form
- Spread it around – break up concentration flows
- Settle it out – use sediment traps and basins



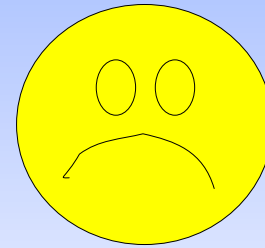
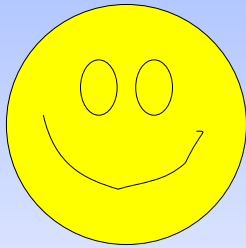
What Makes a BMPs Plan Effective?

- For erosion and sediment control to be effective, it is important that provisions for both **temporary** and **permanent controls** be
 - Specified appropriately
 - Installed correctly
 - Operated accordingly as designed
- Once implemented, these controls need to be **maintained** and **repaired** to be effective.

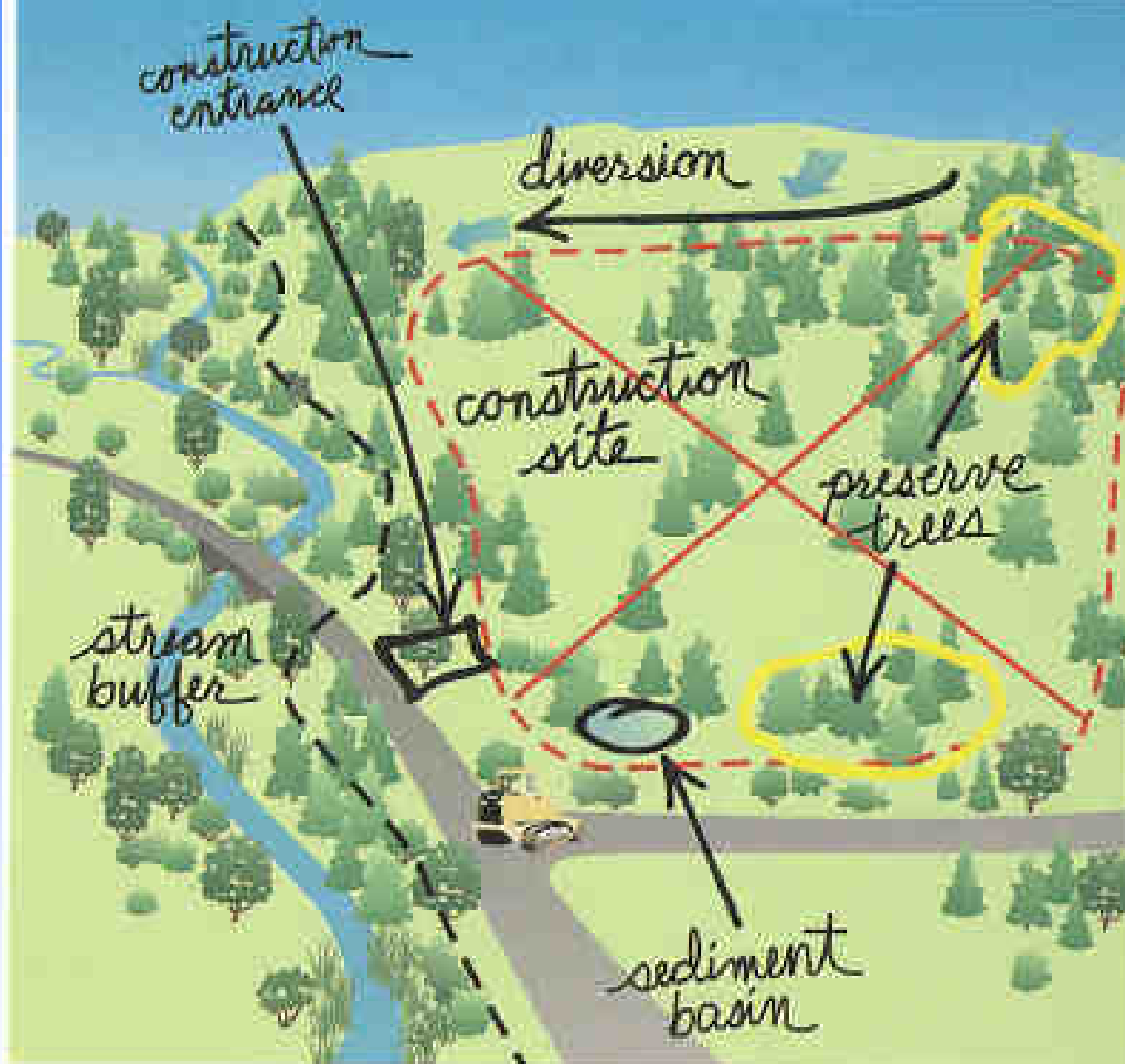


III. Examples of

EFFECTIVE & INEFFECTIVE



Erosion Control and
Best Management Practices




Identify drainage areas and drainage ditches and channels. Install diversions, grassed channels, sediment traps/basins, downslope sediment barriers, and rock construction entrance before beginning work.



Limiting the amount of bare soil exposed to the weather by working in phases reduces erosion and sediment control expenses.



Preserving existing vegetation at the site makes the final development more attractive and saves money by reducing clearing, excavation, and erosion control expenses.



EROSION CONTROL IN PLACE

**Do Not Drive Over
Do Not Park On
Do Not Remove
Sand Bags**

 R.W. Hertel & Sons

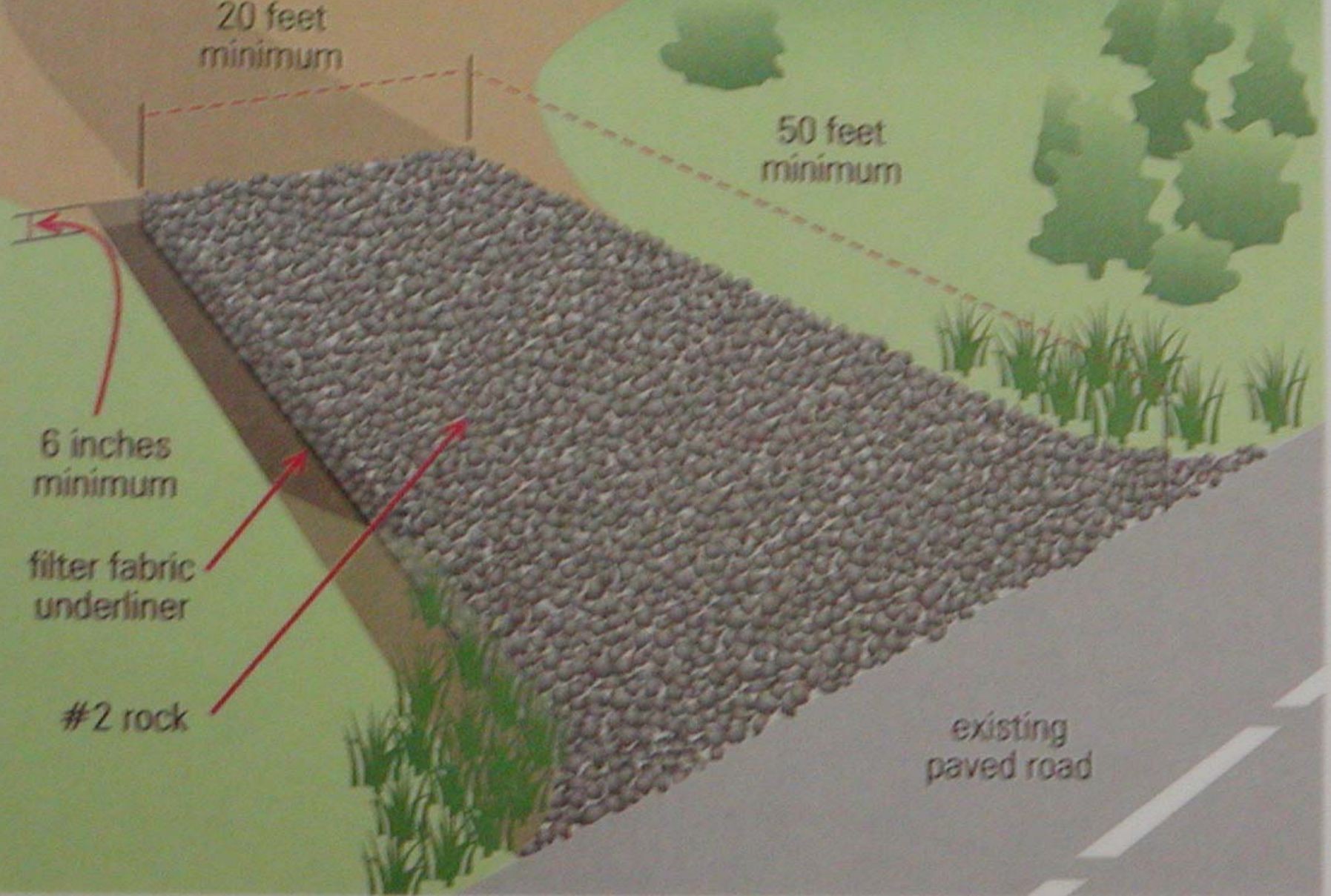
Erosion and sediment controls are required for all construction sites one acre or larger under new federal, state, and local regulations. Storm water pollution prevention plans (also called Best Management Practice Plans) must be written up before the project begins. Permit coverage is also required before clearing, grading, or other cut/fill activities start.



Storm water pollution prevention (BMP) plans and KPDES permit coverage are required for all construction sites one acre or larger under 2003 regulations. Plans must be kept on site and available for inspection.



Limiting the amount of bare soil exposed to the weather by working in phases reduces erosion and sediment control expenses.



Construction entrance detail. Entrance/exit pad must keep mud from tracking onto paved roads.



Rock pad was installed properly with right sized rock, but lack of filter fabric underliner is causing rock to spread and sink into the soil. Note tracking of mud onto paved road. Mud tracked on roadways violates BMP standards, and is a potential legal liability.



Rock sizing, placement, and pad sizing are good, but sediment from unprotected slopes and ditches is washing onto paved highway. Serious liability issue.



Poor construction entrance. Rock pad is poorly constructed; rock is too small. Use filter fabric under rock and larger sized rock, such as #2. No mud should be tracked onto paved roads open for traffic.



Rock sizing and placement look OK for a residential site, and very little mud appears on the pavement. The pad is a little thin, however, and it looks like some drivers are not using it—note track marks near curb. Entire area needs seed and mulch.



Very good installation of multiple silt fences on long slope. Turn ends of fencing uphill to prevent bypass. Leave silt fences up until grass is well established on all areas of the slope. Re-seed bare areas as soon as possible. Remove or spread accumulated sediment and remove silt fence after all grass is up.



Poor installation where silt fences are joined. Roll end stakes together before driving in to create an unbroken sediment barrier or lap curved sections to prevent bypasses. Leaving grass strip between silt fence and bare soil area is a good idea.



Sediment barrier installed backwards. Silt fence fabric should face bare soil area. Stakes go on downhill side. Straw bales can be used to back up fence on downhill side, but not alone.



Very poor attention to silt fence maintenance. Fences and other sediment controls must be inspected and repaired weekly; activities should be logged.



Poor installation of silt fencing, fair to good seeding. Silt fence must be trenched in along bottom. Straw bales are not approved as sediment barriers.



Providing primary and secondary containment for fuel and other hazardous materials at the work site helps prevent problems. Controlling non-storm water runoff, trash and other wastes, and post-construction runoff are also required under the new storm water permit program.



Good construction, seeding, and stabilization of diversion berm. Note that diversion ditch is lined with grass on flatter part of slope, and with rock on steeper part.



Good installation of rock-lined berm to divert rain runoff around residential construction site on steep slope near a river. Diversion ditches can be lined with grass if channel slopes are 20:1 or less, and with blankets or turf mats if they are steeper.



Erosion and sediment loss is virtually eliminated on seeded areas (left side). Rills and small gullies form quickly on unseeded slopes (right).



Poor seed establishment on slope. Use erosion control blankets or turf reinforcement mats when slopes are steep (greater than 4:1) and soil quality is poor. Terracing or benching steep slopes also helps.



Very good installation of erosion control blanket in seeded ditch below well-mulched slope on highway project.

Good application of erosion control blanket to stabilize shoulder and protect storm drain, but too few staples used along the top edge. Trench in top edge of blanket on steep slopes.





Good installation of silt fence at toe of slope. Do not pile soil or other material on silt fences! Also, if space is available move fence back from toe of slopes to allow room for sediment accumulation and maintenance. Leaving a strip of vegetation between bare soil and fence also improves performance.



Very poor slope protection. For best results, prepare soil and apply seed with mulch or blanket immediately after reaching final grade.



Very good design and installation of inlet protection ponding dam
using concrete blocks and rock. Outlet pipe in background has a rock
structure to dissipate flows.



Good application of silt fence frame to protect inlet. Use wire fence backing to reinforce frame, or diagonal bracing across top of stakes. Make sure fence is trenched in to prevent bypasses or undercutting. Inspect and remove sediment as necessary after each rain.



Very good application of mixed rock for culvert inlet ponding dam. Mixing rock promotes better ponding, drainage, and settling of sediment.



Good placement and spacing of fiber-roll silt checks. Coconut fiber rolls and other commercial products can be used where ditch slopes do not exceed three percent.



poor application of commercial silt check product. Check dam needs to be longer (tied into banks). More are needed, at correct spacing for channel slope. Area needs to be re-seeded; ditch may need blanket liner.









ONLY





Cement wash water going to storm drain



Cement wash water draining to State waters



Turbid plume caused by cement wash water







non-functional silt fence

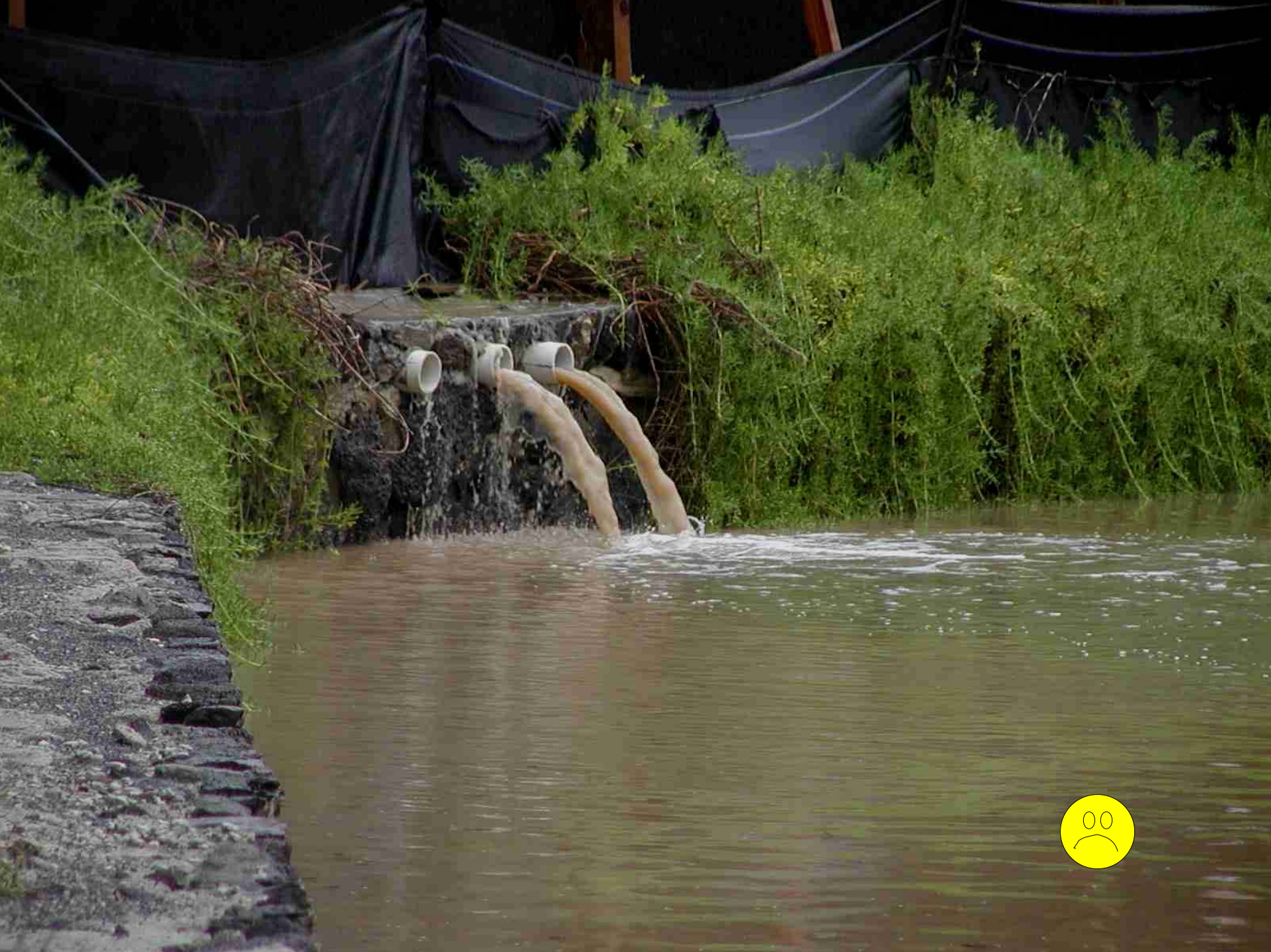




non-functional (unanchored) silt fence









Inadequate silt fence







BEFORE





BEFORE





BEFORE



**Gravel filter for
outlet protection**



AFTER



Gravel filter around
outlet



AFTER





Poor placement and poor maintenance of stone bag inlet ponding dam. Accumulated sediment must be removed and dam should be repaired after each half-inch rain.



Inadequate inlet protection





Inadequate inlet protection





Poor placement of stone bag inlet dam; poor education of construction site drivers. Bags work well if used properly and maintained. Bags must form a dam around the inlet with no large gaps.



Excellent use of concrete blocks and #57 rock for ponding dam to protect inlet. Note 2"x 4" board through blocks for stabilization. Note galvanized fencing and filter fabric between block and rocks.



Very good design and installation of Inlet protection ponding dam using concrete blocks and rock. Outlet pipe in background has a rock apron to dissipate flows.







Open manhole







84 804L



silt fence



Ineffective silt fence





JET-O-MATIC
FLUSHING
TOILET

DO NOT ENTER
WOMEN ONLY
Thank You

Men Only

WOMEN ONLY





Providing primary and secondary containment for fuel and other hazardous materials at the work site helps prevent problems. Controlling non-storm water runoff, trash and other wastes, and post-construction runoff are also required under the new storm water permit program.



containment box for oil barrels





flow

truck tire wash area







Dewatering operation to State water



Dewatering operation to State water (cont'd)



Dewatering operation to State water (cont'd)



Discharge point of untreated dewatering effluent to State waters

Detention Basin





containment of dewatering effluent
into excavated pile area





BEFORE



11 2:00



AFTER





BEFORE





AFTER



EPA Best Management Practices Manuals Website

- Storm Water Management for Construction Activities – Developing Pollution Prevention Plans & Best Management Practices

<http://cfpub1.epa.gov/npdes/stormwater/swpppp.cfm>



Recommendation

- Contact the Clean Water Branch as early as possible



Clean Water Branch
919 Ala Moana Boulevard
Room 301

Honolulu, Hawaii 96814-4920

Phone: (808) 586-4309

Fax: (808) 586-4352

[http://www.hawaii.gov/health/
environmental/water/cleanwater/
index.html](http://www.hawaii.gov/health/environmental/water/cleanwater/index.html)

